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Not peer-reviewed version

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Posted Date: 12 January 2023

doi: 10.20944/preprints202301.0224.v1

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Article

Extremism of the Attacked Body under the Cancer's Circumstances Where Cancer's Recognition Titled (Neutrosophic) SuperHyperGraphs

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Abstract: In this research, assume a SuperHyperGraph. Then a "Failed SuperHyperStable" $\mathcal{I}(\text{NSHG})$ for a neutrosophic SuperHyperGraph $\text{NSHG} : (V, E)$ is the maximum cardinality of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. Assume a SuperHyperGraph. Then an " δ -Failed SuperHyperStable" is a maximal Failed SuperHyperStable of SuperHyperVertices with maximum cardinality such that either of the following expressions hold for the (neutrosophic) cardinalities of SuperHyperNeighbors of $s \in S$: $|S \cap N(s)| > |S \cap (V \setminus N(s))| + \delta$, $|S \cap N(s)| < |S \cap (V \setminus N(s))| + \delta$. The first Expression, holds if S is an " δ -SuperHyperOffensive". And the second Expression, holds if S is an " δ -SuperHyperDefensive"; a "neutrosophic δ -Failed SuperHyperStable" is a maximal neutrosophic Failed SuperHyperStable of SuperHyperVertices with maximum neutrosophic cardinality such that either of the following expressions hold for the neutrosophic cardinalities of SuperHyperNeighbors of $s \in S$: $|S \cap N(s)|_{\text{neutrosophic}} > |S \cap (V \setminus N(s))|_{\text{neutrosophic}} + \delta$, $|S \cap N(s)|_{\text{neutrosophic}} < |S \cap (V \setminus N(s))|_{\text{neutrosophic}} + \delta$. The first Expression, holds if S is a "neutrosophic δ -SuperHyperOffensive". And the second Expression, holds if S is a "neutrosophic δ -SuperHyperDefensive". A basic familiarity with Extreme Failed SuperHyperClique theory, Neutrosophic Failed SuperHyperClique theory, and (Neutrosophic) SuperHyperGraphs theory are proposed.

Keywords: SuperHyperGraph; (Neutrosophic) Failed SuperHyperStable; Cancer's Recognition

MSC: 05C17; 05C22; 05E45

1. Background

Fuzzy set in Ref. [54] by Zadeh (1965), intuitionistic fuzzy sets in Ref. [41] by Atanassov (1986), a first step to a theory of the intuitionistic fuzzy graphs in Ref. [51] by Shannon and Atanassov (1994), a unifying field in logics neutrosophy: neutrosophic probability, set and logic, reboth in Ref. [52] by Smarandache (1998), single-valued neutrosophic sets in Ref. [53] by Wang et al. (2010), single-valued neutrosophic graphs in Ref. [45] by Broumi et al. (2016), operations on single-valued neutrosophic graphs in Ref. [37] by Akram and Shahzadi (2017), neutrosophic soft graphs in Ref. [50] by Shah and Hussain (2016), bounds on the average and minimum attendance in preference-based activity scheduling in Ref. [39] by Aronshtam and Ilani (2022), investigating the recoverable robust single machine scheduling problem under interval uncertainty in Ref. [44] by Bold and Goerigk (2022), polyhedra associated with locating-dominating, open locating-dominating and locating total-dominating sets in graphs in Ref. [38] by G. Argiroffo et al. (2022), a Vizing-type result for semi-total domination in Ref. [40] by J. Asplund et al. (2020), total domination cover rubbing in Ref. [42] by R.A. Beeler et al. (2020), on the global total k -domination number of graphs in Ref. [43] by S. Bermudo et al. (2019), maker-breaker total domination game in Ref. [46] by V. Gledel et al. (2020), a new upper bound on the total domination number in graphs with minimum degree six in Ref. [47] by M.A. Henning, and A. Yeo (2021), effect of predomination and vertex removal on the game total domination number of a graph in Ref. [48] by V. Irsic (2019), hardness results of global total k -domination problem in graphs in Ref. [49] by B.S. Panda, and P. Goyal (2021), are studied.

Look at [32–36] for further researches on this topic. See the seminal researches [1–3]. The formalization of the notions on the framework of Extreme Failed SuperHyperClique theory, Neutrosophic

Failed SuperHyperClique theory, and (Neutrosophic) SuperHyperGraphs theory at [4–29]. Two popular research books in Scribd in the terms of high readers, 2638 and 3363 respectively, on neutrosophic science is on [30,31].

2. Extreme Applications in Cancer's Extreme Recognition toward Extreme Failed SuperHyperStable

For giving the sense about the visions on this even, the extreme Failed SuperHyperStable is applied in the general forms and the arrangements of the internal venues. Regarding the generality, the next section is introduced.

Definition 1. ((neutrosophic) Failed SuperHyperStable).

Assume a SuperHyperGraph. Then

- (i) a **Failed SuperHyperStable** $\mathcal{I}(\text{NSHG})$ for a SuperHyperGraph $\text{NSHG} : (V, E)$ is the maximum cardinality of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common;
- (ii) a **neutrosophic Failed SuperHyperStable** $\mathcal{I}_n(\text{NSHG})$ for a neutrosophic SuperHyperGraph $\text{NSHG} : (V, E)$ is the maximum neutrosophic cardinality of a neutrosophic SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common.

Definition 2. ((neutrosophic) δ –Failed SuperHyperStable).

Assume a SuperHyperGraph. Then

- (i) an δ –**Failed SuperHyperStable** is a maximal of SuperHyperVertices with a maximum cardinality such that either of the following expressions hold for the (neutrosophic) cardinalities of SuperHyperNeighbors of $s \in S$:

$$|S \cap N(s)| > |S \cap (V \setminus N(s))| + \delta; \quad (1)$$

$$|S \cap N(s)| < |S \cap (V \setminus N(s))| + \delta. \quad (2)$$

The Expression (1), holds if S is an δ –**SuperHyperOffensive**. And the Expression (2), holds if S is an δ –**SuperHyperDefensive**;

- (ii) a **neutrosophic δ –Failed SuperHyperStable** is a maximal neutrosophic of SuperHyperVertices with maximum neutrosophic cardinality such that either of the following expressions hold for the neutrosophic cardinalities of SuperHyperNeighbors of $s \in S$:

$$|S \cap N(s)|_{\text{neutrosophic}} > |S \cap (V \setminus N(s))|_{\text{neutrosophic}} + \delta; \quad (3)$$

$$|S \cap N(s)|_{\text{neutrosophic}} < |S \cap (V \setminus N(s))|_{\text{neutrosophic}} + \delta. \quad (4)$$

The Expression (3), holds if S is a **neutrosophic δ –SuperHyperOffensive**. And the Expression (4), holds if S is a **neutrosophic δ –SuperHyperDefensive**.

3. General Extreme Results for Cancer's Extreme Recognition toward Extreme Failed SuperHyperStable

For the Failed SuperHyperStable, and the neutrosophic Failed SuperHyperStable, some general results are introduced.

Remark 1. Let remind that the neutrosophic Failed SuperHyperStable is “redefined” on the positions of the alphabets.

Corollary 1. Assume Failed SuperHyperStable. Then

$$\begin{aligned} \text{Neutrosophic FailedSuperHyperStable} = \\ \{ \text{theFailedSuperHyperStableoftheSuperHyperVertices} \mid \\ \max | \text{SuperHyperDefensiveSuperHyper} \\ \text{Stable} |_{\text{neutrosophiccardinalityamidthoseFailedSuperHyperStable}} \} \end{aligned}$$

Where σ_i is the unary operation on the SuperHyperVertices of the SuperHyperGraph to assign the determinacy, the indeterminacy and the neutrality, for $i = 1, 2, 3$, respectively.

Corollary 2. Assume a neutrosophic SuperHyperGraph on the same identical letter of the alphabet. Then the notion of neutrosophic Failed SuperHyperStable and Failed SuperHyperStable coincide.

Corollary 3. Assume a neutrosophic SuperHyperGraph on the same identical letter of the alphabet. Then a consecutive sequence of the SuperHyperVertices is a neutrosophic Failed SuperHyperStable if and only if it's a Failed SuperHyperStable.

Corollary 4. Assume a neutrosophic SuperHyperGraph on the same identical letter of the alphabet. Then a consecutive sequence of the SuperHyperVertices is a strongest SuperHyperCycle if and only if it's a longest SuperHyperCycle.

Corollary 5. Assume SuperHyperClasses of a neutrosophic SuperHyperGraph on the same identical letter of the alphabet. Then its neutrosophic Failed SuperHyperStable is its Failed SuperHyperStable and reversely.

Corollary 6. Assume a neutrosophic SuperHyperPath(-/SuperHyperCycle, SuperHyperStar, SuperHyper-Bipartite, SuperHyperMultipartite, SuperHyperWheel) on the same identical letter of the alphabet. Then its neutrosophic Failed SuperHyperStable is its Failed SuperHyperStable and reversely.

Corollary 7. Assume a neutrosophic SuperHyperGraph. Then its neutrosophic Failed SuperHyperStable isn't well-defined if and only if its Failed SuperHyperStable isn't well-defined.

Corollary 8. Assume SuperHyperClasses of a neutrosophic SuperHyperGraph. Then its neutrosophic Failed SuperHyperStable isn't well-defined if and only if its Failed SuperHyperStable isn't well-defined.

Corollary 9. Assume a neutrosophic SuperHyperPath(-/SuperHyperCycle, SuperHyperStar, SuperHyper-Bipartite, SuperHyperMultipartite, SuperHyperWheel). Then its neutrosophic Failed SuperHyperStable isn't well-defined if and only if its Failed SuperHyperStable isn't well-defined.

Corollary 10. Assume a neutrosophic SuperHyperGraph. Then its neutrosophic Failed SuperHyperStable is well-defined if and only if its Failed SuperHyperStable is well-defined.

Corollary 11. Assume SuperHyperClasses of a neutrosophic SuperHyperGraph. Then its neutrosophic Failed SuperHyperStable is well-defined if and only if its Failed SuperHyperStable is well-defined.

Corollary 12. Assume a neutrosophic SuperHyperPath(-/SuperHyperCycle, SuperHyperStar, SuperHyper-Bipartite, SuperHyperMultipartite, SuperHyperWheel). Then its neutrosophic Failed SuperHyperStable is well-defined if and only if its Failed SuperHyperStable is well-defined.

Proposition 1. Let NSHG : (V, E) be a neutrosophic SuperHyperGraph. Then V is

- (i) : the dual SuperHyperDefensive Failed SuperHyperStable;
- (ii) : the strong dual SuperHyperDefensive Failed SuperHyperStable;

- (iii) : the connected dual SuperHyperDefensive Failed SuperHyperStable;
- (iv) : the δ -dual SuperHyperDefensive Failed SuperHyperStable;
- (v) : the strong δ -dual SuperHyperDefensive Failed SuperHyperStable;
- (vi) : the connected δ -dual SuperHyperDefensive Failed SuperHyperStable.

Proposition 2. Let $NTG : (V, E, \sigma, \mu)$ be a neutrosophic SuperHyperGraph. Then \emptyset is

- (i) : the SuperHyperDefensive Failed SuperHyperStable;
- (ii) : the strong SuperHyperDefensive Failed SuperHyperStable;
- (iii) : the connected defensive SuperHyperDefensive Failed SuperHyperStable;
- (iv) : the δ -SuperHyperDefensive Failed SuperHyperStable;
- (v) : the strong δ -SuperHyperDefensive Failed SuperHyperStable;
- (vi) : the connected δ -SuperHyperDefensive Failed SuperHyperStable.

Proposition 3. Let $NSHG : (V, E)$ be a neutrosophic SuperHyperGraph. Then an independent SuperHyperSet is

- (i) : the SuperHyperDefensive Failed SuperHyperStable;
- (ii) : the strong SuperHyperDefensive Failed SuperHyperStable;
- (iii) : the connected SuperHyperDefensive Failed SuperHyperStable;
- (iv) : the δ -SuperHyperDefensive Failed SuperHyperStable;
- (v) : the strong δ -SuperHyperDefensive Failed SuperHyperStable;
- (vi) : the connected δ -SuperHyperDefensive Failed SuperHyperStable.

Proposition 4. Let $NSHG : (V, E)$ be a neutrosophic SuperHyperUniform SuperHyperGraph which is a SuperHyperCycle/SuperHyperPath. Then V is a maximal

- (i) : SuperHyperDefensive Failed SuperHyperStable;
- (ii) : strong SuperHyperDefensive Failed SuperHyperStable;
- (iii) : connected SuperHyperDefensive Failed SuperHyperStable;
- (iv) : $\mathcal{O}(NSHG)$ -SuperHyperDefensive Failed SuperHyperStable;
- (v) : strong $\mathcal{O}(NSHG)$ -SuperHyperDefensive Failed SuperHyperStable;
- (vi) : connected $\mathcal{O}(NSHG)$ -SuperHyperDefensive Failed SuperHyperStable;

Where the exterior SuperHyperVertices and the interior SuperHyperVertices coincide.

Proposition 5. Let $NSHG : (V, E)$ be a neutrosophic SuperHyperGraph which is a SuperHyperUniform SuperHyperWheel. Then V is a maximal

- (i) : dual SuperHyperDefensive Failed SuperHyperStable;
- (ii) : strong dual SuperHyperDefensive Failed SuperHyperStable;
- (iii) : connected dual SuperHyperDefensive Failed SuperHyperStable;
- (iv) : $\mathcal{O}(NSHG)$ -dual SuperHyperDefensive Failed SuperHyperStable;
- (v) : strong $\mathcal{O}(NSHG)$ -dual SuperHyperDefensive Failed SuperHyperStable;
- (vi) : connected $\mathcal{O}(NSHG)$ -dual SuperHyperDefensive Failed SuperHyperStable;

Where the exterior SuperHyperVertices and the interior SuperHyperVertices coincide.

Proposition 6. Let $NSHG : (V, E)$ be a neutrosophic SuperHyperUniform SuperHyperGraph which is a SuperHyperCycle/SuperHyperPath. Then the number of

- (i) : the Failed SuperHyperStable;
- (ii) : the Failed SuperHyperStable;
- (iii) : the connected Failed SuperHyperStable;
- (iv) : the $\mathcal{O}(NSHG)$ -Failed SuperHyperStable;
- (v) : the strong $\mathcal{O}(NSHG)$ -Failed SuperHyperStable;

(vi) : the connected $\mathcal{O}(\text{NSHG})$ -Failed SuperHyperStable.

is one and it's only V . Where the exterior SuperHyperVertices and the interior SuperHyperVertices coincide.

Proposition 7. Let $\text{NSHG} : (V, E)$ be a neutrosophic SuperHyperUniform SuperHyperGraph which is a SuperHyperWheel. Then the number of

- (i) : the dual Failed SuperHyperStable;
- (ii) : the dual Failed SuperHyperStable;
- (iii) : the dual connected Failed SuperHyperStable;
- (iv) : the dual $\mathcal{O}(\text{NSHG})$ -Failed SuperHyperStable;
- (v) : the strong dual $\mathcal{O}(\text{NSHG})$ -Failed SuperHyperStable;
- (vi) : the connected dual $\mathcal{O}(\text{NSHG})$ -Failed SuperHyperStable.

is one and it's only V . Where the exterior SuperHyperVertices and the interior SuperHyperVertices coincide.

Proposition 8. Let $\text{NSHG} : (V, E)$ be a neutrosophic SuperHyperUniform SuperHyperGraph which is a SuperHyperStar/SuperHyperComplete SuperHyperBipartite/SuperHyperComplete SuperHyperMultipartite. Then a SuperHyperSet contains [the SuperHyperCenter and] the half of multiplying r with the number of all the SuperHyperEdges plus one of all the SuperHyperVertices is a

- (i) : dual SuperHyperDefensive Failed SuperHyperStable;
- (ii) : strong dual SuperHyperDefensive Failed SuperHyperStable;
- (iii) : connected dual SuperHyperDefensive Failed SuperHyperStable;
- (iv) : $\frac{\mathcal{O}(\text{NSHG})}{2} + 1$ -dual SuperHyperDefensive Failed SuperHyperStable;
- (v) : strong $\frac{\mathcal{O}(\text{NSHG})}{2} + 1$ -dual SuperHyperDefensive Failed SuperHyperStable;
- (vi) : connected $\frac{\mathcal{O}(\text{NSHG})}{2} + 1$ -dual SuperHyperDefensive Failed SuperHyperStable.

Proposition 9. Let $\text{NSHG} : (V, E)$ be a neutrosophic SuperHyperUniform SuperHyperGraph which is a SuperHyperStar/SuperHyperComplete SuperHyperBipartite/SuperHyperComplete SuperHyperMultipartite. Then a SuperHyperSet contains the half of multiplying r with the number of all the SuperHyperEdges plus one of all the SuperHyperVertices in the biggest SuperHyperPart is a

- (i) : SuperHyperDefensive Failed SuperHyperStable;
- (ii) : strong SuperHyperDefensive Failed SuperHyperStable;
- (iii) : connected SuperHyperDefensive Failed SuperHyperStable;
- (iv) : δ -SuperHyperDefensive Failed SuperHyperStable;
- (v) : strong δ -SuperHyperDefensive Failed SuperHyperStable;
- (vi) : connected δ -SuperHyperDefensive Failed SuperHyperStable.

Proposition 10. Let $\text{NSHG} : (V, E)$ be a neutrosophic SuperHyperUniform SuperHyperGraph which is a SuperHyperStar/SuperHyperComplete SuperHyperBipartite/SuperHyperComplete SuperHyperMultipartite. Then the number of

- (i) : dual SuperHyperDefensive Failed SuperHyperStable;
- (ii) : strong dual SuperHyperDefensive Failed SuperHyperStable;
- (iii) : connected dual SuperHyperDefensive Failed SuperHyperStable;
- (iv) : $\frac{\mathcal{O}(\text{NSHG})}{2} + 1$ -dual SuperHyperDefensive Failed SuperHyperStable;
- (v) : strong $\frac{\mathcal{O}(\text{NSHG})}{2} + 1$ -dual SuperHyperDefensive Failed SuperHyperStable;
- (vi) : connected $\frac{\mathcal{O}(\text{NSHG})}{2} + 1$ -dual SuperHyperDefensive Failed SuperHyperStable.

is one and it's only S , a SuperHyperSet contains [the SuperHyperCenter and] the half of multiplying r with the number of all the SuperHyperEdges plus one of all the SuperHyperVertices. Where the exterior SuperHyperVertices and the interior SuperHyperVertices coincide.

Proposition 11. Let $NSHG : (V, E)$ be a neutrosophic SuperHyperGraph. The number of connected component is $|V - S|$ if there's a SuperHyperSet which is a dual

- (i) : SuperHyperDefensive Failed SuperHyperStable;
- (ii) : strong SuperHyperDefensive Failed SuperHyperStable;
- (iii) : connected SuperHyperDefensive Failed SuperHyperStable;
- (iv) : Failed SuperHyperStable;
- (v) : strong 1-SuperHyperDefensive Failed SuperHyperStable;
- (vi) : connected 1-SuperHyperDefensive Failed SuperHyperStable.

Proposition 12. Let $NSHG : (V, E)$ be a neutrosophic SuperHyperGraph. Then the number is at most $\mathcal{O}(NSHG)$ and the neutrosophic number is at most $\mathcal{O}_n(NSHG)$.

Proposition 13. Let $NSHG : (V, E)$ be a neutrosophic SuperHyperGraph. Then the number is at most $\mathcal{O}(NSHG)$ and the neutrosophic number is at most $\mathcal{O}_n(NSHG)$.

Proposition 14. Let $NSHG : (V, E)$ be a neutrosophic SuperHyperGraph which is SuperHyperComplete. The number is $\frac{\mathcal{O}(NSHG:(V,E))}{2} + 1$ and the neutrosophic number is $\min_{v \in \{v_1, v_2, \dots, v_t\}} \sum_{t > \frac{\mathcal{O}(NSHG:(V,E))}{2}} \subseteq V^\sigma(v)$, in the setting of dual

- (i) : SuperHyperDefensive Failed SuperHyperStable;
- (ii) : strong SuperHyperDefensive Failed SuperHyperStable;
- (iii) : connected SuperHyperDefensive Failed SuperHyperStable;
- (iv) : $(\frac{\mathcal{O}(NSHG:(V,E))}{2} + 1)$ -SuperHyperDefensive Failed SuperHyperStable;
- (v) : strong $(\frac{\mathcal{O}(NSHG:(V,E))}{2} + 1)$ -SuperHyperDefensive Failed SuperHyperStable;
- (vi) : connected $(\frac{\mathcal{O}(NSHG:(V,E))}{2} + 1)$ -SuperHyperDefensive Failed SuperHyperStable.

Proposition 15. Let $NSHG : (V, E)$ be a neutrosophic SuperHyperGraph which is \emptyset . The number is 0 and the neutrosophic number is 0, for an independent SuperHyperSet in the setting of dual

- (i) : SuperHyperDefensive Failed SuperHyperStable;
- (ii) : strong SuperHyperDefensive Failed SuperHyperStable;
- (iii) : connected SuperHyperDefensive Failed SuperHyperStable;
- (iv) : 0-SuperHyperDefensive Failed SuperHyperStable;
- (v) : strong 0-SuperHyperDefensive Failed SuperHyperStable;
- (vi) : connected 0-SuperHyperDefensive Failed SuperHyperStable.

Proposition 16. Let $NSHG : (V, E)$ be a neutrosophic SuperHyperGraph which is SuperHyperComplete. Then there's no independent SuperHyperSet.

Proposition 17. Let $NSHG : (V, E)$ be a neutrosophic SuperHyperGraph which is SuperHyperCycle/SuperHyperPath/SuperHyperStar. The number is $\mathcal{O}(NSHG : (V, E))$ and the neutrosophic number is $\mathcal{O}_n(NSHG : (V, E))$, in the setting of a dual

- (i) : SuperHyperDefensive Failed SuperHyperStable;
- (ii) : strong SuperHyperDefensive Failed SuperHyperStable;
- (iii) : connected SuperHyperDefensive Failed SuperHyperStable;
- (iv) : $\mathcal{O}(NSHG : (V, E))$ -SuperHyperDefensive Failed SuperHyperStable;
- (v) : strong $\mathcal{O}(NSHG : (V, E))$ -SuperHyperDefensive Failed SuperHyperStable;
- (vi) : connected $\mathcal{O}(NSHG : (V, E))$ -SuperHyperDefensive Failed SuperHyperStable.

Proposition 18. Let $NSHG : (V, E)$ be a neutrosophic SuperHyperGraph which is SuperHyperStar/complete SuperHyperBipartite/complete SuperHyperMultiPartite. The number is $\frac{\mathcal{O}(NSHG:(V,E))}{2} + 1$ and the neutrosophic number is $\min_{v \in \{v_1, v_2, \dots, v_t\}} \sum_{t > \frac{\mathcal{O}(NSHG:(V,E))}{2}} \subseteq V^\sigma(v)$, in the setting of a dual

- (i) : SuperHyperDefensive Failed SuperHyperStable;
- (ii) : strong SuperHyperDefensive Failed SuperHyperStable;
- (iii) : connected SuperHyperDefensive Failed SuperHyperStable;
- (iv) : $(\frac{\mathcal{O}(\text{NSHG}:(V,E))}{2} + 1)$ -SuperHyperDefensive Failed SuperHyperStable;
- (v) : strong $(\frac{\mathcal{O}(\text{NSHG}:(V,E))}{2} + 1)$ -SuperHyperDefensive Failed SuperHyperStable;
- (vi) : connected $(\frac{\mathcal{O}(\text{NSHG}:(V,E))}{2} + 1)$ -SuperHyperDefensive Failed SuperHyperStable.

Proposition 19. Let $\mathcal{NSHF} : (V, E)$ be a SuperHyperFamily of the NSHGs : (V, E) neutrosophic SuperHyperGraphs which are from one-type SuperHyperClass which the result is obtained for the individuals. Then the results also hold for the SuperHyperFamily $\mathcal{NSHF} : (V, E)$ of these specific SuperHyperClasses of the neutrosophic SuperHyperGraphs.

Proposition 20. Let $\text{NSHG} : (V, E)$ be a strong neutrosophic SuperHyperGraph. If S is a dual SuperHyper-Defensive Failed SuperHyperStable, then $\forall v \in V \setminus S, \exists x \in S$ such that

- (i) $v \in N_s(x)$;
- (ii) $vx \in E$.

Proposition 21. Let $\text{NSHG} : (V, E)$ be a strong neutrosophic SuperHyperGraph. If S is a dual SuperHyper-Defensive Failed SuperHyperStable, then

- (i) S is SuperHyperDominating set;
- (ii) there's $S \subseteq S'$ such that $|S'|$ is SuperHyperChromatic number.

Proposition 22. Let $\text{NSHG} : (V, E)$ be a strong neutrosophic SuperHyperGraph. Then

- (i) $\Gamma \leq \mathcal{O}$;
- (ii) $\Gamma_s \leq \mathcal{O}_n$.

Proposition 23. Let $\text{NSHG} : (V, E)$ be a strong neutrosophic SuperHyperGraph which is connected. Then

- (i) $\Gamma \leq \mathcal{O} - 1$;
- (ii) $\Gamma_s \leq \mathcal{O}_n - \sum_{i=1}^3 \sigma_i(x)$.

Proposition 24. Let $\text{NSHG} : (V, E)$ be an odd SuperHyperPath. Then

- (i) the SuperHyperSet $S = \{v_2, v_4, \dots, v_{n-1}\}$ is a dual SuperHyperDefensive Failed SuperHyperStable;
- (ii) $\Gamma = \lfloor \frac{n}{2} \rfloor + 1$ and corresponded SuperHyperSet is $S = \{v_2, v_4, \dots, v_{n-1}\}$;
- (iii) $\Gamma_s = \min\{\sum_{s \in S = \{v_2, v_4, \dots, v_{n-1}\}} \sum_{i=1}^3 \sigma_i(s), \sum_{s \in S = \{v_1, v_3, \dots, v_{n-1}\}} \sum_{i=1}^3 \sigma_i(s)\}$;
- (iv) the SuperHyperSets $S_1 = \{v_2, v_4, \dots, v_{n-1}\}$ and $S_2 = \{v_1, v_3, \dots, v_{n-1}\}$ are only a dual Failed SuperHyperStable.

Proposition 25. Let $\text{NSHG} : (V, E)$ be an even SuperHyperPath. Then

- (i) the set $S = \{v_2, v_4, \dots, v_n\}$ is a dual SuperHyperDefensive Failed SuperHyperStable;
- (ii) $\Gamma = \lfloor \frac{n}{2} \rfloor$ and corresponded SuperHyperSets are $\{v_2, v_4, \dots, v_n\}$ and $\{v_1, v_3, \dots, v_{n-1}\}$;
- (iii) $\Gamma_s = \min\{\sum_{s \in S = \{v_2, v_4, \dots, v_n\}} \sum_{i=1}^3 \sigma_i(s), \sum_{s \in S = \{v_1, v_3, \dots, v_{n-1}\}} \sum_{i=1}^3 \sigma_i(s)\}$;
- (iv) the SuperHyperSets $S_1 = \{v_2, v_4, \dots, v_n\}$ and $S_2 = \{v_1, v_3, \dots, v_{n-1}\}$ are only dual Failed SuperHyperStable.

Proposition 26. Let $\text{NSHG} : (V, E)$ be an even SuperHyperCycle. Then

- (i) the SuperHyperSet $S = \{v_2, v_4, \dots, v_n\}$ is a dual SuperHyperDefensive Failed SuperHyperStable;
- (ii) $\Gamma = \lfloor \frac{n}{2} \rfloor$ and corresponded SuperHyperSets are $\{v_2, v_4, \dots, v_n\}$ and $\{v_1, v_3, \dots, v_{n-1}\}$;
- (iii) $\Gamma_s = \min\{\sum_{s \in S = \{v_2, v_4, \dots, v_n\}} \sigma(s), \sum_{s \in S = \{v_1, v_3, \dots, v_{n-1}\}} \sigma(s)\}$;

(iv) the SuperHyperSets $S_1 = \{v_2, v_4, \dots, v_n\}$ and $S_2 = \{v_1, v_3, \dots, v_{n-1}\}$ are only dual Failed SuperHyperStable.

Proposition 27. Let $NSHG : (V, E)$ be an odd SuperHyperCycle. Then

- (i) the SuperHyperSet $S = \{v_2, v_4, \dots, v_{n-1}\}$ is a dual SuperHyperDefensive Failed SuperHyperStable;
- (ii) $\Gamma = \lfloor \frac{n}{2} \rfloor + 1$ and corresponded SuperHyperSet is $S = \{v_2, v_4, \dots, v_{n-1}\}$;
- (iii) $\Gamma_s = \min\{\sum_{s \in S = \{v_2, v_4, \dots, v_{n-1}\}} \sum_{i=1}^3 \sigma_i(s), \sum_{s \in S = \{v_1, v_3, \dots, v_{n-1}\}} \sum_{i=1}^3 \sigma_i(s)\}$;
- (iv) the SuperHyperSets $S_1 = \{v_2, v_4, \dots, v_{n-1}\}$ and $S_2 = \{v_1, v_3, \dots, v_{n-1}\}$ are only dual Failed SuperHyperStable.

Proposition 28. Let $NSHG : (V, E)$ be SuperHyperStar. Then

- (i) the SuperHyperSet $S = \{c\}$ is a dual maximal Failed SuperHyperStable;
- (ii) $\Gamma = 1$;
- (iii) $\Gamma_s = \sum_{i=1}^3 \sigma_i(c)$;
- (iv) the SuperHyperSets $S = \{c\}$ and $S \subset S'$ are only dual Failed SuperHyperStable.

Proposition 29. Let $NSHG : (V, E)$ be SuperHyperWheel. Then

- (i) the SuperHyperSet $S = \{v_1, v_3\} \cup \{v_6, v_9, \dots, v_{i+6}, \dots, v_n\}_{i=1}^{6+3(i-1) \leq n}$ is a dual maximal SuperHyperDefensive Failed SuperHyperStable;
- (ii) $\Gamma = |\{v_1, v_3\} \cup \{v_6, v_9, \dots, v_{i+6}, \dots, v_n\}_{i=1}^{6+3(i-1) \leq n}|$;
- (iii) $\Gamma_s = \sum_{\{v_1, v_3\} \cup \{v_6, v_9, \dots, v_{i+6}, \dots, v_n\}_{i=1}^{6+3(i-1) \leq n}} \sum_{i=1}^3 \sigma_i(s)$;
- (iv) the SuperHyperSet $\{v_1, v_3\} \cup \{v_6, v_9, \dots, v_{i+6}, \dots, v_n\}_{i=1}^{6+3(i-1) \leq n}$ is only a dual maximal SuperHyperDefensive Failed SuperHyperStable.

Proposition 30. Let $NSHG : (V, E)$ be an odd SuperHyperComplete. Then

- (i) the SuperHyperSet $S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor + 1}$ is a dual SuperHyperDefensive Failed SuperHyperStable;
- (ii) $\Gamma = \lfloor \frac{n}{2} \rfloor + 1$;
- (iii) $\Gamma_s = \min\{\sum_{s \in S} \sum_{i=1}^3 \sigma_i(s)\}_{S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor + 1}}$;
- (iv) the SuperHyperSet $S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor + 1}$ is only a dual SuperHyperDefensive Failed SuperHyperStable.

Proposition 31. Let $NSHG : (V, E)$ be an even SuperHyperComplete. Then

- (i) the SuperHyperSet $S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor}$ is a dual SuperHyperDefensive Failed SuperHyperStable;
- (ii) $\Gamma = \lfloor \frac{n}{2} \rfloor$;
- (iii) $\Gamma_s = \min\{\sum_{s \in S} \sum_{i=1}^3 \sigma_i(s)\}_{S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor}}$;
- (iv) the SuperHyperSet $S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor}$ is only a dual maximal SuperHyperDefensive Failed SuperHyperStable.

Proposition 32. Let $\mathcal{NSHF} : (V, E)$ be a m -SuperHyperFamily of neutrosophic SuperHyperStars with common neutrosophic SuperHyperVertex SuperHyperSet. Then

- (i) the SuperHyperSet $S = \{c_1, c_2, \dots, c_m\}$ is a dual SuperHyperDefensive Failed SuperHyperStable for \mathcal{NSHF} ;
- (ii) $\Gamma = m$ for $\mathcal{NSHF} : (V, E)$;
- (iii) $\Gamma_s = \sum_{i=1}^m \sum_{j=1}^3 \sigma_j(c_i)$ for $\mathcal{NSHF} : (V, E)$;
- (iv) the SuperHyperSets $S = \{c_1, c_2, \dots, c_m\}$ and $S \subset S'$ are only dual Failed SuperHyperStable for $\mathcal{NSHF} : (V, E)$.

Proposition 33. Let $\mathcal{NSHF} : (V, E)$ be an m -SuperHyperFamily of odd SuperHyperComplete SuperHyperGraphs with common neutrosophic SuperHyperVertex SuperHyperSet. Then

- (i) the SuperHyperSet $S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor + 1}$ is a dual maximal SuperHyperDefensive Failed SuperHyperStable for \mathcal{NSHF} ;
- (ii) $\Gamma = \lfloor \frac{n}{2} \rfloor + 1$ for $\mathcal{NSHF} : (V, E)$;
- (iii) $\Gamma_s = \min\{\sum_{s \in S} \sum_{i=1}^3 \sigma_i(s)\}_{S=\{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor + 1}}$ for $\mathcal{NSHF} : (V, E)$;
- (iv) the SuperHyperSets $S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor + 1}$ are only a dual maximal Failed SuperHyperStable for $\mathcal{NSHF} : (V, E)$.

Proposition 34. Let $\mathcal{NSHF} : (V, E)$ be a m -SuperHyperFamily of even SuperHyperComplete SuperHyperGraphs with common neutrosophic SuperHyperVertex SuperHyperSet. Then

- (i) the SuperHyperSet $S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor}$ is a dual SuperHyperDefensive Failed SuperHyperStable for $\mathcal{NSHF} : (V, E)$;
- (ii) $\Gamma = \lfloor \frac{n}{2} \rfloor$ for $\mathcal{NSHF} : (V, E)$;
- (iii) $\Gamma_s = \min\{\sum_{s \in S} \sum_{i=1}^3 \sigma_i(s)\}_{S=\{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor}}$ for $\mathcal{NSHF} : (V, E)$;
- (iv) the SuperHyperSets $S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor}$ are only dual maximal Failed SuperHyperStable for $\mathcal{NSHF} : (V, E)$.

Proposition 35. Let $\mathcal{NSHG} : (V, E)$ be a strong neutrosophic SuperHyperGraph. Then following statements hold;

- (i) if $s \geq t$ and a SuperHyperSet S of SuperHyperVertices is an t -SuperHyperDefensive Failed SuperHyperStable, then S is an s -SuperHyperDefensive Failed SuperHyperStable;
- (ii) if $s \leq t$ and a SuperHyperSet S of SuperHyperVertices is a dual t -SuperHyperDefensive Failed SuperHyperStable, then S is a dual s -SuperHyperDefensive Failed SuperHyperStable.

Proposition 36. Let $\mathcal{NSHG} : (V, E)$ be a strong neutrosophic SuperHyperGraph. Then following statements hold;

- (i) if $s \geq t + 2$ and a SuperHyperSet S of SuperHyperVertices is an t -SuperHyperDefensive Failed SuperHyperStable, then S is an s -SuperHyperPowerful Failed SuperHyperStable;
- (ii) if $s \leq t$ and a SuperHyperSet S of SuperHyperVertices is a dual t -SuperHyperDefensive Failed SuperHyperStable, then S is a dual s -SuperHyperPowerful Failed SuperHyperStable.

Proposition 37. Let $\mathcal{NSHG} : (V, E)$ be a $a[an] [r]$ -SuperHyperUniform-strong-neutrosophic SuperHyperGraph. Then following statements hold;

- (i) if $\forall a \in S, |N_s(a) \cap S| < \lfloor \frac{r}{2} \rfloor + 1$, then $\mathcal{NSHG} : (V, E)$ is an 2-SuperHyperDefensive Failed SuperHyperStable;
- (ii) if $\forall a \in V \setminus S, |N_s(a) \cap S| > \lfloor \frac{r}{2} \rfloor + 1$, then $\mathcal{NSHG} : (V, E)$ is a dual 2-SuperHyperDefensive Failed SuperHyperStable;
- (iii) if $\forall a \in S, |N_s(a) \cap V \setminus S| = 0$, then $\mathcal{NSHG} : (V, E)$ is an r -SuperHyperDefensive Failed SuperHyperStable;
- (iv) if $\forall a \in V \setminus S, |N_s(a) \cap V \setminus S| = 0$, then $\mathcal{NSHG} : (V, E)$ is a dual r -SuperHyperDefensive Failed SuperHyperStable.

Proposition 38. Let $\mathcal{NSHG} : (V, E)$ be a $a[an] [r]$ -SuperHyperUniform-strong-neutrosophic SuperHyperGraph. Then following statements hold;

- (i) $\forall a \in S, |N_s(a) \cap S| < \lfloor \frac{r}{2} \rfloor + 1$ if $\mathcal{NSHG} : (V, E)$ is an 2-SuperHyperDefensive Failed SuperHyperStable;
- (ii) $\forall a \in V \setminus S, |N_s(a) \cap S| > \lfloor \frac{r}{2} \rfloor + 1$ if $\mathcal{NSHG} : (V, E)$ is a dual 2-SuperHyperDefensive Failed SuperHyperStable;
- (iii) $\forall a \in S, |N_s(a) \cap V \setminus S| = 0$ if $\mathcal{NSHG} : (V, E)$ is an r -SuperHyperDefensive Failed SuperHyperStable;

- (iv) $\forall a \in V \setminus S, |N_s(a) \cap V \setminus S| = 0$ if $NSHG : (V, E)$ is a dual r -SuperHyperDefensive Failed SuperHyperStable.

Proposition 39. Let $NSHG : (V, E)$ is a $[an]$ $[r]$ -SuperHyperUniform-strong-neutrosophic SuperHyperGraph which is a SuperHyperComplete. Then following statements hold;

- (i) $\forall a \in S, |N_s(a) \cap S| < \lfloor \frac{\mathcal{O}-1}{2} \rfloor + 1$ if $NSHG : (V, E)$ is an 2-SuperHyperDefensive Failed SuperHyperStable;
- (ii) $\forall a \in V \setminus S, |N_s(a) \cap S| > \lfloor \frac{\mathcal{O}-1}{2} \rfloor + 1$ if $NSHG : (V, E)$ is a dual 2-SuperHyperDefensive Failed SuperHyperStable;
- (iii) $\forall a \in S, |N_s(a) \cap V \setminus S| = 0$ if $NSHG : (V, E)$ is an $(\mathcal{O} - 1)$ -SuperHyperDefensive Failed SuperHyperStable;
- (iv) $\forall a \in V \setminus S, |N_s(a) \cap V \setminus S| = 0$ if $NSHG : (V, E)$ is a dual $(\mathcal{O} - 1)$ -SuperHyperDefensive Failed SuperHyperStable.

Proposition 40. Let $NSHG : (V, E)$ is a $[an]$ $[r]$ -SuperHyperUniform-strong-neutrosophic SuperHyperGraph which is a SuperHyperComplete. Then following statements hold;

- (i) if $\forall a \in S, |N_s(a) \cap S| < \lfloor \frac{\mathcal{O}-1}{2} \rfloor + 1$, then $NSHG : (V, E)$ is an 2-SuperHyperDefensive Failed SuperHyperStable;
- (ii) if $\forall a \in V \setminus S, |N_s(a) \cap S| > \lfloor \frac{\mathcal{O}-1}{2} \rfloor + 1$, then $NSHG : (V, E)$ is a dual 2-SuperHyperDefensive Failed SuperHyperStable;
- (iii) if $\forall a \in S, |N_s(a) \cap V \setminus S| = 0$, then $NSHG : (V, E)$ is $(\mathcal{O} - 1)$ -SuperHyperDefensive Failed SuperHyperStable;
- (iv) if $\forall a \in V \setminus S, |N_s(a) \cap V \setminus S| = 0$, then $NSHG : (V, E)$ is a dual $(\mathcal{O} - 1)$ -SuperHyperDefensive Failed SuperHyperStable.

Proposition 41. Let $NSHG : (V, E)$ is a $[an]$ $[r]$ -SuperHyperUniform-strong-neutrosophic SuperHyperGraph which is SuperHyperCycle. Then following statements hold;

- (i) $\forall a \in S, |N_s(a) \cap S| < 2$ if $NSHG : (V, E)$ is an 2-SuperHyperDefensive Failed SuperHyperStable;
- (ii) $\forall a \in V \setminus S, |N_s(a) \cap S| > 2$ if $NSHG : (V, E)$ is a dual 2-SuperHyperDefensive Failed SuperHyperStable;
- (iii) $\forall a \in S, |N_s(a) \cap V \setminus S| = 0$ if $NSHG : (V, E)$ is an 2-SuperHyperDefensive Failed SuperHyperStable;
- (iv) $\forall a \in V \setminus S, |N_s(a) \cap V \setminus S| = 0$ if $NSHG : (V, E)$ is a dual 2-SuperHyperDefensive Failed SuperHyperStable.

Proposition 42. Let $NSHG : (V, E)$ is a $[an]$ $[r]$ -SuperHyperUniform-strong-neutrosophic SuperHyperGraph which is SuperHyperCycle. Then following statements hold;

- (i) if $\forall a \in S, |N_s(a) \cap S| < 2$, then $NSHG : (V, E)$ is an 2-SuperHyperDefensive Failed SuperHyperStable;
- (ii) if $\forall a \in V \setminus S, |N_s(a) \cap S| > 2$, then $NSHG : (V, E)$ is a dual 2-SuperHyperDefensive Failed SuperHyperStable;
- (iii) if $\forall a \in S, |N_s(a) \cap V \setminus S| = 0$, then $NSHG : (V, E)$ is an 2-SuperHyperDefensive Failed SuperHyperStable;
- (iv) if $\forall a \in V \setminus S, |N_s(a) \cap V \setminus S| = 0$, then $NSHG : (V, E)$ is a dual 2-SuperHyperDefensive Failed SuperHyperStable.

4. Motivation and Contributions

In this research, there are some ideas in the featured frameworks of motivations. I try to bring the motivations in the narrative ways.

Question 1. How to define the SuperHyperNotions and to do research on them to find the “amount of Failed SuperHyperStable” of either individual of cells or the groups of cells based on the fixed cell or the fixed group of cells, extensively, the “amount of Failed SuperHyperStable” based on the fixed groups of cells or the fixed groups of group of cells?

Question 2. What are the best descriptions for the “Cancer’s Recognitions” in terms of these messy and dense SuperHyperModels where embedded notions are illustrated?

It’s motivation to find notions to use in this dense model is titled “SuperHyperGraphs”. Thus it motivates us to define different types of “Failed SuperHyperStable” and “neutrosophic Failed SuperHyperStable” on “SuperHyperGraph” and “Neutrosophic SuperHyperGraph”.

5. Extreme Failed SuperHyperStable in Some Extreme Situations for Cancer without any names or any specific classes

Example 1. Assume the SuperHyperGraphs in the Figures 1–20.

- On the Figure 1, the SuperHyperNotion, namely, Failed SuperHyperStable, is up. E_1 and E_3 Failed SuperHyperStable are some empty SuperHyperEdges but E_2 is a loop SuperHyperEdge and E_4 is a SuperHyperEdge. Thus in the terms of SuperHyperNeighbor, there’s only one SuperHyperEdge, namely, E_4 . The SuperHyperVertex, V_3 is isolated means that there’s no SuperHyperEdge has it as an endpoint. Thus SuperHyperVertex, V_3 , is contained in every given Failed SuperHyperStable. All the following SuperHyperSet of SuperHyperVertices is the simple type-SuperHyperSet of the Failed SuperHyperStable. $\{V_3, V_1, V_2\}$. The SuperHyperSet of SuperHyperVertices, $\{V_3, V_1, V_2\}$, is the simple type-SuperHyperSet of the Failed SuperHyperStable. The SuperHyperSet of the SuperHyperVertices, $\{V_3, V_1, V_2\}$, is corresponded to a Failed SuperHyperStable $\mathcal{I}(NSHG)$ for a SuperHyperGraph $NSHG : (V, E)$ is **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there’s a SuperHyperVertex to have a SuperHyperEdge in common. There’re only **three** SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious Failed SuperHyperStable is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable is a SuperHyperSet **includes** only **one** SuperHyperVertex. But the SuperHyperSet of SuperHyperVertices, $\{V_3, V_1, V_2\}$, doesn’t have less than two SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable **is** up. To sum them up, the SuperHyperSet of SuperHyperVertices, $\{V_3, V_1, V_2\}$, **is** the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable. Since the SuperHyperSet of the SuperHyperVertices, $\{V_3, V_1, V_2\}$, is corresponded to a Failed SuperHyperStable $\mathcal{I}(NSHG)$ for a SuperHyperGraph $NSHG : (V, E)$ is the SuperHyperSet S of SuperHyperVertices such that there’s a SuperHyperVertex to have a SuperHyperEdge in common **and** they are corresponded to a **Failed SuperHyperStable**. Since it’s **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there’s a SuperHyperVertex to have a SuperHyperEdge in common. There aren’t only less than two SuperHyperVertices **inside** the intended SuperHyperSet, $\{V_3, V_1, V_2\}$. Thus the non-obvious Failed SuperHyperStable, $\{V_3, V_1, V_2\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $\{V_3, V_1, V_2\}$, is the SuperHyperSet, $\{V_3, V_1, V_2\}$, doesn’t include only less than two SuperHyperVertices in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. It’s interesting to mention that the only obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable amid those obvious simple type-SuperHyperSets of the Failed SuperHyperStable, is only $\{V_3, V_4, V_2\}$.
- On the Figure 2, the SuperHyperNotion, namely, Failed SuperHyperStable, is up. E_1 and E_3 Failed SuperHyperStable are some empty SuperHyperEdges but E_2 is a loop SuperHyperEdge and E_4 is a SuperHyperEdge. Thus in the terms of SuperHyperNeighbor, there’s only one SuperHyperEdge, namely, E_4 . The SuperHyperVertex, V_3 is isolated means that there’s no SuperHyperEdge has it as an endpoint. Thus SuperHyperVertex, V_3 , is contained in every given Failed SuperHyperStable. All the following SuperHyperSet of SuperHyperVertices is the simple type-SuperHyperSet of the Failed SuperHyperStable. $\{V_3, V_1, V_2\}$. The SuperHyperSet of SuperHyperVertices, $\{V_3, V_1, V_2\}$, is the simple type-SuperHyperSet of the Failed SuperHyperStable. The SuperHyperSet of the SuperHyperVertices, $\{V_3, V_1, V_2\}$, is corresponded to a Failed SuperHyperStable $\mathcal{I}(NSHG)$ for a SuperHyperGraph $NSHG : (V, E)$ is **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there’s a SuperHyperVertex to have a SuperHyperEdge in common. There’re

only **three** SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious Failed SuperHyperStable is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable is a SuperHyperSet **includes** only **one** SuperHyperVertex. But the SuperHyperSet of SuperHyperVertices, $\{V_3, V_1, V_2\}$, doesn't have less than two SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable **is** up. To sum them up, the SuperHyperSet of SuperHyperVertices, $\{V_3, V_1, V_2\}$, **is** the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable. Since the SuperHyperSet of the SuperHyperVertices, $\{V_3, V_1, V_2\}$, is corresponded to a Failed SuperHyperStable $\mathcal{I}(NSHG)$ for a SuperHyperGraph $NSHG : (V, E)$ is the SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common **and** they are corresponded to a **Failed SuperHyperStable**. Since it's **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There aren't only less than two SuperHyperVertices **inside** the intended SuperHyperSet, $\{V_3, V_1, V_2\}$. Thus the non-obvious Failed SuperHyperStable, $\{V_3, V_1, V_2\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $\{V_3, V_1, V_2\}$, is the SuperHyperSet, $\{V_3, V_1, V_2\}$, doesn't include only less than two SuperHyperVertices in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. It's interesting to mention that the only obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable amid those obvious simple type-SuperHyperSets of the Failed SuperHyperStable, is only $\{V_3, V_4, V_1\}$.

- On the Figure 3, the SuperHyperNotion, namely, Failed SuperHyperStable, is up. E_1, E_2 and E_3 are some empty SuperHyperEdges but E_4 is a SuperHyperEdge. Thus in the terms of SuperHyperNeighbor, there's only one SuperHyperEdge, namely, E_4 . The SuperHyperSet of SuperHyperVertices, $\{V_3, V_2\}$, is the simple type-SuperHyperSet of the Failed SuperHyperStable. The SuperHyperSet of the SuperHyperVertices, $\{V_3, V_2\}$, is **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There're only **two** SuperHyperVertex **inside** the intended SuperHyperSet. Thus the non-obvious Failed SuperHyperStable **is** up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable is a SuperHyperSet **includes** only **one** SuperHyperVertex in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. But the SuperHyperSet of SuperHyperVertices, $\{V_3, V_2\}$, doesn't have less than two SuperHyperVertex **inside** the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable **is** up. To sum them up, the SuperHyperSet of SuperHyperVertices, $\{V_3, V_2\}$, **is** the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable. Since the SuperHyperSet of the SuperHyperVertices, $\{V_3, V_2\}$, is corresponded to a Failed SuperHyperStable $\mathcal{I}(NSHG)$ for a SuperHyperGraph $NSHG : (V, E)$ is the SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common **and** they are **Failed SuperHyperStable**. Since it's **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There aren't only less than two SuperHyperVertices **inside** the intended SuperHyperSets, $\{V_3, V_2\}$, Thus the non-obvious Failed SuperHyperStable, $\{V_3, V_2\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $\{V_3, V_2\}$, is the SuperHyperSet, $\{V_3, V_2\}$, don't include only more than one SuperHyperVertex in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. It's interesting to mention that the only obvious simple type-SuperHyperSets of the neutrosophic Failed SuperHyperStable amid those obvious simple type-SuperHyperSets of the Failed SuperHyperStable, is only $\{V_3, V_2\}$.
- On the Figure 4, the SuperHyperNotion, namely, a Failed SuperHyperStable, is up. There's no empty SuperHyperEdge but E_3 are a loop SuperHyperEdge on $\{F\}$, and there are some SuperHyperEdges, namely, E_1 on $\{H, V_1, V_3\}$, alongside E_2 on $\{O, H, V_4, V_3\}$ and E_4, E_5 on $\{N, V_1, V_2, V_3, F\}$. The SuperHyperSet of SuperHyperVertices, $\{V_2, V_4, V_1\}$, is the simple type-SuperHyperSet of the Failed SuperHyperStable. The SuperHyperSet of the SuperHyperVertices, $\{V_2, V_4, V_1\}$, is **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There're only **three** SuperHyperVertices

inside the intended SuperHyperSet. Thus the non-obvious Failed SuperHyperStable is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable is a SuperHyperSet includes only one SuperHyperVertex since it doesn't form any kind of pairs titled to SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. But the SuperHyperSet of SuperHyperVertices, $\{V_2, V_4, V_1\}$, doesn't have less than two SuperHyperVertices inside the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable is up. To sum them up, the SuperHyperSet of SuperHyperVertices, $\{V_2, V_4, V_1\}$, is the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable. Since the SuperHyperSet of the SuperHyperVertices, $\{V_2, V_4, V_1\}$, is the SuperHyperSet S_s of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common and it's **Failed SuperHyperStable**. Since it's the maximum cardinality of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There aren't only less than two SuperHyperVertices inside the intended SuperHyperSet, $\{V_2, V_4, V_1\}$. Thus the non-obvious Failed SuperHyperStable, $\{V_2, V_4, V_1\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $\{V_2, V_4, V_1\}$, is a SuperHyperSet, $\{V_2, V_4, V_1\}$, doesn't include only less than two SuperHyperVertices in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$.

- On the Figure 5, the SuperHyperNotion, namely, Failed SuperHyperStable, is up. There's neither empty SuperHyperEdge nor loop SuperHyperEdge. The SuperHyperSet of SuperHyperVertices, $\{V_2, V_6, V_9, V_{15}, V_{10}\}$, is the simple type-SuperHyperSet of the Failed SuperHyperStable. The SuperHyperSet of the SuperHyperVertices, $\{V_2, V_6, V_9, V_{15}, V_{10}\}$, is the maximum cardinality of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There're not only one SuperHyperVertex inside the intended SuperHyperSet. Thus the non-obvious Failed SuperHyperStable is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable is a SuperHyperSet includes only one SuperHyperVertex thus it doesn't form any kind of pairs titled to SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. But the SuperHyperSet of SuperHyperVertices, $\{V_2, V_6, V_9, V_{15}, V_{10}\}$, doesn't have less than two SuperHyperVertices inside the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable is up. To sum them up, the SuperHyperSet of SuperHyperVertices, $\{V_2, V_6, V_9, V_{15}, V_{10}\}$, is the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable. Since the SuperHyperSet of the SuperHyperVertices, $\{V_2, V_6, V_9, V_{15}, V_{10}\}$, is the SuperHyperSet S_s of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. and it's **Failed SuperHyperStable**. Since it's the maximum cardinality of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There aren't only less than two SuperHyperVertices inside the intended SuperHyperSet, $\{V_2, V_6, V_9, V_{15}, V_{10}\}$. Thus the non-obvious Failed SuperHyperStable, $\{V_2, V_6, V_9, V_{15}, V_{10}\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $\{V_2, V_6, V_9, V_{15}, V_{10}\}$, is a SuperHyperSet, $\{V_2, V_6, V_9, V_{15}, V_{10}\}$, doesn't include only less than two SuperHyperVertices in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$ is mentioned as the SuperHyperModel $NSHG : (V, E)$ in the Figure 5.
- On the Figure 6, the SuperHyperNotion, namely, Failed SuperHyperStable, is up. There's neither empty SuperHyperEdge nor loop SuperHyperEdge. The SuperHyperSet of SuperHyperVertices,

$$\{V_2, V_4, V_6, V_8, V_{10}, \\ V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

is the simple type-SuperHyperSet of the Failed SuperHyperStable. The SuperHyperSet of the SuperHyperVertices,

$$\{V_2, V_4, V_6, V_8, V_{10}, \\ V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

is **the maximum cardinality** of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There're not only **one** SuperHyperVertex **inside** the intended SuperHyperSet. Thus the non-obvious Failed SuperHyperStable **is** up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable is a SuperHyperSet **includes** only **one** SuperHyperVertex doesn't form any kind of pairs titled to SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. But the SuperHyperSet of SuperHyperVertices,

$$\{V_2, V_4, V_6, V_8, V_{10}, \\ V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

doesn't have less than two SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable **is** up. To sum them up, the SuperHyperSet of SuperHyperVertices,

$$\{V_2, V_4, V_6, V_8, V_{10}, \\ V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

is the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable. Since the SuperHyperSet of the SuperHyperVertices,

$$\{V_2, V_4, V_6, V_8, V_{10}, \\ V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

is the SuperHyperSet S_s of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common **and** it's a **Failed SuperHyperStable**. Since it's **the maximum cardinality** of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There aren't only less than two SuperHyperVertices **inside** the intended SuperHyperSet,

$$\{V_2, V_4, V_6, V_8, V_{10}, \\ V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

Thus the non-obvious Failed SuperHyperStable,

$$\{V_2, V_4, V_6, V_8, V_{10}, \\ V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable,

$$\{V_2, V_4, V_6, V_8, V_{10}, \\ V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

is a SuperHyperSet,

$$\{V_2, V_4, V_6, V_8, V_{10}, \\ V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

doesn't include only less than two SuperHyperVertices in a connected neutrosophic SuperHyper-Graph $NSHG : (V, E)$ with a illustrated SuperHyperModeling of the Figure 6.

- On the Figure 7, the SuperHyperNotion, namely, Failed SuperHyperStable, is up. There's neither empty SuperHyperEdge nor loop SuperHyperEdge. The SuperHyperSet of SuperHyperVertices, $\{V_2, V_5, V_9, V_7\}$, is the simple type-SuperHyperSet of the Failed SuperHyperStable. The SuperHy-

perSet of the SuperHyperVertices, $\{V_2, V_5, V_9, V_7\}$, is **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There's only **one** SuperHyperVertex **inside** the intended SuperHyperSet. Thus the non-obvious Failed SuperHyperStable **is** up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable is a SuperHyperSet **includes** only **one** SuperHyperVertex doesn't form any kind of pairs are titled to SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. But the SuperHyperSet of SuperHyperVertices, $\{V_2, V_5, V_9, V_7\}$, doesn't have less than two SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable **is** up. To sum them up, the SuperHyperSet of SuperHyperVertices, $\{V_2, V_5, V_9, V_7\}$, **is** the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable. Since the SuperHyperSet of the SuperHyperVertices, $\{V_2, V_5, V_9, V_7\}$, is the SuperHyperSet S_s of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common **and** it's a **Failed SuperHyperStable**. Since it's **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There aren't only less than two SuperHyperVertices **inside** the intended SuperHyperSet, $\{V_2, V_5, V_9, V_7\}$. Thus the non-obvious Failed SuperHyperStable, $\{V_2, V_5, V_9, V_7\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $\{V_2, V_5, V_9, V_7\}$, is a SuperHyperSet, $\{V_2, V_5, V_9, V_7\}$, doesn't include only less than two SuperHyperVertices in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$ of depicted SuperHyperModel as the Figure 7.

- On the Figure 8, the SuperHyperNotion, namely, Failed SuperHyperStable, is up. There's neither empty SuperHyperEdge nor loop SuperHyperEdge. The SuperHyperSet of SuperHyperVertices, $\{V_2, V_5, V_9, V_7\}$, is the simple type-SuperHyperSet of the Failed SuperHyperStable. The SuperHyperSet of the SuperHyperVertices, $\{V_2, V_5, V_9, V_7\}$, is **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There's only **one** SuperHyperVertex **inside** the intended SuperHyperSet. Thus the non-obvious Failed SuperHyperStable **is** up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable is a SuperHyperSet **includes** only **one** SuperHyperVertex doesn't form any kind of pairs are titled to SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. But the SuperHyperSet of SuperHyperVertices, $\{V_2, V_5, V_9, V_7\}$, doesn't have less than two SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable **is** up. To sum them up, the SuperHyperSet of SuperHyperVertices, $\{V_2, V_5, V_9, V_7\}$, **is** the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable. Since the SuperHyperSet of the SuperHyperVertices, $\{V_2, V_5, V_9, V_7\}$, is the SuperHyperSet S_s of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common **and** it's a **Failed SuperHyperStable**. Since it's **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There aren't only less than two SuperHyperVertices **inside** the intended SuperHyperSet, $\{V_2, V_5, V_9, V_7\}$. Thus the non-obvious Failed SuperHyperStable, $\{V_2, V_5, V_9, V_7\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $\{V_2, V_5, V_9, V_7\}$, is a SuperHyperSet, $\{V_2, V_5, V_9, V_7\}$, doesn't include only less than two SuperHyperVertices in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$ of dense SuperHyperModel as the Figure 8.
- On the Figure 9, the SuperHyperNotion, namely, Failed SuperHyperStable, is up. There's neither empty SuperHyperEdge nor loop SuperHyperEdge. The SuperHyperSet of SuperHyperVertices,

$$\{V_2, V_4, V_6, V_8, V_{10}, \\ V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

is the simple type-SuperHyperSet of the Failed SuperHyperStable. The SuperHyperSet of the SuperHyperVertices,

$$\{V_2, V_4, V_6, V_8, V_{10}, \\ V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

is **the maximum cardinality** of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There're only **only** SuperHyperVertex **inside** the intended SuperHyperSet. Thus the non-obvious Failed SuperHyperStable **is** up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable is a SuperHyperSet **includes** only **one** SuperHyperVertex doesn't form any kind of pairs titled to SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. But the SuperHyperSet of SuperHyperVertices,

$$\{V_2, V_4, V_6, V_8, V_{10}, \\ V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

doesn't have less than two SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable **is** up. To sum them up, the SuperHyperSet of SuperHyperVertices,

$$\{V_2, V_4, V_6, V_8, V_{10}, \\ V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

is the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable. Since the SuperHyperSet of the SuperHyperVertices,

$$\{V_2, V_4, V_6, V_8, V_{10}, \\ V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

is the SuperHyperSet S_s of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common **and** it's a **Failed SuperHyperStable**. Since it's **the maximum cardinality** of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There aren't only less than two SuperHyperVertices **inside** the intended SuperHyperSet,

$$\{V_2, V_4, V_6, V_8, V_{10}, \\ V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\}.$$

Thus the non-obvious Failed SuperHyperStable,

$$\{V_2, V_4, V_6, V_8, V_{10}, \\ V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable,

$$\{V_2, V_4, V_6, V_8, V_{10}, \\ V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

is a SuperHyperSet,

$$\{V_2, V_4, V_6, V_8, V_{10}, \\ V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

doesn't include only less than two SuperHyperVertices in a connected neutrosophic SuperHyper-Graph $NSHG : (V, E)$ with a messy SuperHyperModeling of the Figure 9.

- On the Figure 10, the SuperHyperNotion, namely, Failed SuperHyperStable, is up. There's neither empty SuperHyperEdge nor loop SuperHyperEdge. The SuperHyperSet of SuperHyperVertices, $\{V_2, V_5, V_8, V_7\}$, is the simple type-SuperHyperSet of the Failed SuperHyperStable. The SuperHyperSet of the SuperHyperVertices, $\{V_2, V_5, V_8, V_7\}$, is **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There're not only **two** SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious Failed SuperHyperStable **is** up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable is a SuperHyperSet **includes** only **two** SuperHyperVertices doesn't form any kind of pairs are titled to SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. But the SuperHyperSet of SuperHyperVertices, $\{V_2, V_5, V_8\}$, doesn't have less than two SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable **is** up. To sum them up, the SuperHyperSet of SuperHyperVertices, $\{V_2, V_5, V_8, V_7\}$, **is** the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable. Since the SuperHyperSet of the SuperHyperVertices, $\{V_2, V_5, V_8, V_7\}$, is the SuperHyperSet S s of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common **and** it's a **Failed SuperHyperStable**. Since it's **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There aren't only less than two SuperHyperVertices **inside** the intended SuperHyperSet, $\{V_2, V_5, V_8, V_7\}$. Thus the non-obvious Failed SuperHyperStable, $\{V_2, V_5, V_8, V_7\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $\{V_2, V_5, V_8, V_7\}$, is a SuperHyperSet, $\{V_2, V_5, V_8, V_7\}$, doesn't include only more than one SuperHyperVertex in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$ of highly-embedding-connected SuperHyperModel as the Figure 10.
- On the Figure 11, the SuperHyperNotion, namely, Failed SuperHyperStable, is up. There's neither empty SuperHyperEdge nor loop SuperHyperEdge. The SuperHyperSet of SuperHyperVertices, $\{V_2, V_5\}$, is the simple type-SuperHyperSet of the Failed SuperHyperStable. The SuperHyperSet of the SuperHyperVertices, $\{V_2, V_5, V_6\}$, is **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There're not only less than **one** SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious Failed SuperHyperStable **is** up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable is a SuperHyperSet **includes** only less than **two** SuperHyperVertices don't form any kind of pairs are titled to SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. But the SuperHyperSet of SuperHyperVertices, $\{V_2, V_5, V_6\}$, doesn't have less than two SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable **is** up. To sum them up, the SuperHyperSet of SuperHyperVertices, $\{V_2, V_5, V_6\}$, **is** the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable. Since the SuperHyperSet of the SuperHyperVertices, $\{V_2, V_5, V_6\}$, is the SuperHyperSet S s of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common **and** it's a **Failed SuperHyperStable**. Since it's **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There aren't only less than two SuperHyperVertices **inside** the intended SuperHyperSet, $\{V_2, V_5, V_6\}$. Thus the non-obvious Failed SuperHyperStable, $\{V_2, V_5, V_6\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $\{V_2, V_5, V_6\}$, is a SuperHyperSet, $\{V_2, V_5, V_6\}$, doesn't include only less than two SuperHyperVertices in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$.
- On the Figure 12, the SuperHyperNotion, namely, Failed SuperHyperStable, is up. There's neither empty SuperHyperEdge nor loop SuperHyperEdge. The SuperHyperSet of SuperHyperVertices, $\{V_4, V_5, V_6, V_9, V_{10}, V_2\}$, is the simple type-SuperHyperSet of the Failed SuperHyperStable. The SuperHyperSet of the SuperHyperVertices, $\{V_4, V_5, V_6, V_9, V_{10}, V_2\}$, is **the maximum cardinality**

of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There're not only less than **two** SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious Failed SuperHyperStable **is** up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable is a SuperHyperSet **includes** only less than **two** SuperHyperVertices doesn't form any kind of pairs are titled to SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. But the SuperHyperSet of SuperHyperVertices, $\{V_4, V_5, V_6, V_9, V_{10}, V_2\}$, doesn't have less than two SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable **is** up. To sum them up, the SuperHyperSet of SuperHyperVertices, $\{V_4, V_5, V_6, V_9, V_{10}, V_2\}$, **is** the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable. Since the SuperHyperSet of the SuperHyperVertices, $\{V_4, V_5, V_6, V_9, V_{10}, V_2\}$, is the SuperHyperSet S_s of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common **and** they are **Failed SuperHyperStable**. Since it's **the maximum cardinality** of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There aren't only less than two SuperHyperVertices **inside** the intended SuperHyperSet, $\{V_4, V_5, V_6, V_9, V_{10}, V_2\}$. Thus the non-obvious Failed SuperHyperStable, $\{V_4, V_5, V_6, V_9, V_{10}, V_2\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $\{V_4, V_5, V_6, V_9, V_{10}, V_2\}$, is a SuperHyperSet, $\{V_4, V_5, V_6, V_9, V_{10}, V_2\}$, doesn't include only more than one SuperHyperVertex in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$ in highly-multiple-connected-style SuperHyper-Model On the Figure 12.

- On the Figure 13, the SuperHyperNotion, namely, Failed SuperHyperStable, is up. There's neither empty SuperHyperEdge nor loop SuperHyperEdge. The SuperHyperSet of SuperHyperVertices, $\{V_2, V_5, V_6\}$, is the simple type-SuperHyperSet of the Failed SuperHyperStable. The SuperHyperSet of the SuperHyperVertices, $\{V_2, V_5, V_6\}$, is **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There're not only less than **two** SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious Failed SuperHyperStable **is** up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable is a SuperHyperSet **includes** only less than **two** SuperHyperVertices don't form any kind of pairs are titled to SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. But the SuperHyperSet of SuperHyperVertices, $\{V_2, V_5, V_6\}$, doesn't have less than two SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable **is** up. To sum them up, the SuperHyperSet of SuperHyperVertices, $\{V_2, V_5, V_6\}$, **is** the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable. Since the SuperHyperSet of the SuperHyperVertices, $\{V_2, V_5, V_6\}$, is the SuperHyperSet S_s of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common **and** it's a **Failed SuperHyperStable**. Since it's **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There aren't only less than two SuperHyperVertices **inside** the intended SuperHyperSet, $\{V_2, V_5, V_6\}$. Thus the non-obvious Failed SuperHyperStable, $\{V_2, V_5, V_6\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $\{V_2, V_5, V_6\}$, is a SuperHyperSet, $\{V_2, V_5, V_6\}$, does includes only less than two SuperHyperVertices in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$.
- On the Figure 14, the SuperHyperNotion, namely, Failed SuperHyperStable, is up. There's neither empty SuperHyperEdge nor loop SuperHyperEdge. The SuperHyperSet of SuperHyperVertices, $\{V_3, V_1\}$, is the simple type-SuperHyperSet of the Failed SuperHyperStable. The SuperHyperSet of the SuperHyperVertices, $\{V_3, V_1\}$, is **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There're only less than **two** SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious Failed SuperHyperStable **is** up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable is a SuperHyperSet **includes** only less than **two** SuperHyperVertices doesn't form any kind of pairs are titled to SuperHyperNeighbors in a connected neutrosophic Su-

perHyperGraph $NSHG : (V, E)$. But the SuperHyperSet of SuperHyperVertices, $\{V_3, V_1\}$, doesn't have less than two SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable **is** up. To sum them up, the SuperHyperSet of SuperHyperVertices, $\{V_3, V_1\}$, **is** the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable. Since the SuperHyperSet of the SuperHyperVertices, $\{V_3, V_1\}$, is the SuperHyperSet S_s of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common **and** it's a **Failed SuperHyperStable**. Since it's **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There aren't only less than two SuperHyperVertices **inside** the intended SuperHyperSet, $\{V_3, V_1\}$. Thus the non-obvious Failed SuperHyperStable, $\{V_3, V_1\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $\{V_3, V_1\}$, is a SuperHyperSet, $\{V_3, V_1\}$, does includes only less than two SuperHyperVertices in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$.

- On the Figure 15, the SuperHyperNotion, namely, Failed SuperHyperStable, is up. There's neither empty SuperHyperEdge nor loop SuperHyperEdge. The SuperHyperSet of SuperHyperVertices, $\{V_5, V_2, V_6, V_4\}$, is the simple type-SuperHyperSet of the Failed SuperHyperStable. The SuperHyperSet of the SuperHyperVertices, $\{V_5, V_2, V_6, V_4\}$, is **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There're only less than **two** SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious Failed SuperHyperStable **is** up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable is a SuperHyperSet **includes** only less than **two** SuperHyperVertices doesn't form any kind of pairs are titled to SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. But the SuperHyperSet of SuperHyperVertices, $\{V_5, V_2, V_6, V_4\}$, doesn't have less than two SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable **is** up. To sum them up, the SuperHyperSet of SuperHyperVertices, $\{V_5, V_2, V_6, V_4\}$, **is** the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable. Since the SuperHyperSet of the SuperHyperVertices, $\{V_5, V_2, V_6, V_4\}$, is the SuperHyperSet S_s of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common **and** it's a **Failed SuperHyperStable**. Since it's **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There aren't only less than two SuperHyperVertices **inside** the intended SuperHyperSet, $\{V_5, V_2, V_6, V_4\}$. Thus the non-obvious Failed SuperHyperStable, $\{V_5, V_2, V_6, V_4\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $\{V_5, V_2, V_6, V_4\}$, is a SuperHyperSet, $\{V_5, V_2, V_6, V_4\}$, doesn't include only less than two SuperHyperVertices in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$ as Linearly-Connected SuperHyperModel On the Figure 15.
- On the Figure 16, the SuperHyperNotion, namely, Failed SuperHyperStable, is up. There's neither empty SuperHyperEdge nor loop SuperHyperEdge. The SuperHyperSet of SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is the simple type-SuperHyperSet of the Failed SuperHyperStable. The SuperHyperSet of the SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There're only less than **two** SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious Failed SuperHyperStable **is** up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable is a SuperHyperSet **includes** only less than **two** SuperHyperVertices doesn't form any kind of pairs are titled to SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. But the SuperHyperSet of SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, doesn't have less than two SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable **is** up. To sum them up, the SuperHyperSet of SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, **is** the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable. Since the SuperHyperSet of the SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is the

SuperHyperSet S_s of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common **and** it's a **Failed SuperHyperStable**. Since it's **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There aren't only less than two SuperHyperVertices **inside** the intended SuperHyperSet, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$. Thus the non-obvious Failed SuperHyperStable, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is a SuperHyperSet, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, does includes only less than two SuperHyperVertices in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$.

- On the Figure 17, the SuperHyperNotion, namely, Failed SuperHyperStable, is up. There's neither empty SuperHyperEdge nor loop SuperHyperEdge. The SuperHyperSet of SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is the simple type-SuperHyperSet of the Failed SuperHyperStable. The SuperHyperSet of the SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There're only less than **two** SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious Failed SuperHyperStable **is** up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable is a SuperHyperSet **includes** only less than **two** SuperHyperVertices doesn't form any kind of pairs are titled to SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. But the SuperHyperSet of SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, doesn't have less than two SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable **is** up. To sum them up, the SuperHyperSet of SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, **is** the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable. Since the SuperHyperSet of the SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is the SuperHyperSet S_s of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common **and** it's a **Failed SuperHyperStable**. Since it's **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There aren't only less than two SuperHyperVertices **inside** the intended SuperHyperSet, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$. Thus the non-obvious Failed SuperHyperStable, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is a SuperHyperSet, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, does includes only less than two SuperHyperVertices in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$ as Linearly-over-packed SuperHyperModel is featured On the Figure 17.
- On the Figure 18, the SuperHyperNotion, namely, Failed SuperHyperStable, is up. There's neither empty SuperHyperEdge nor loop SuperHyperEdge. The SuperHyperSet of SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is the simple type-SuperHyperSet of the Failed SuperHyperStable. The SuperHyperSet of the SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There're only less than **two** SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious Failed SuperHyperStable **is** up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable is a SuperHyperSet **includes** only less than **two** SuperHyperVertices doesn't form any kind of pairs are titled to SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. But the SuperHyperSet of SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, doesn't have less than two SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable **is** up. To sum them up, the SuperHyperSet of SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, **is** the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable. Since the SuperHyperSet of the SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is the SuperHyperSet S_s of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common **and** it's a **Failed SuperHyperStable**. Since it's **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a

SuperHyperEdge in common. There're only less than two SuperHyperVertices inside the intended SuperHyperSet, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$. Thus the non-obvious Failed SuperHyperStable, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is a SuperHyperSet, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, does includes only less than two SuperHyperVertices in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$

- On the Figure 19, the SuperHyperNotion, namely, Failed SuperHyperStable, is up. There's neither empty SuperHyperEdge nor loop SuperHyperEdge. The SuperHyperSet of SuperHyperVertices,

$$\{\text{interior SuperHyperVertices}\}_{\text{the number of SuperHyperEdges}},$$

is the simple type-SuperHyperSet of the Failed SuperHyperStable. The SuperHyperSet of the SuperHyperVertices,

$$\{\text{interior SuperHyperVertices}\}_{\text{the number of SuperHyperEdges}},$$

is **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There're only less than **two** SuperHyperVertices inside the intended SuperHyperSet. Thus the non-obvious Failed SuperHyperStable is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable is a SuperHyperSet includes only less than **two** SuperHyperVertices doesn't form any kind of pairs are titled to SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. But the SuperHyperSet of SuperHyperVertices,

$$\{\text{interior SuperHyperVertices}\}_{\text{the number of SuperHyperEdges}},$$

doesn't have less than two SuperHyperVertices inside the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable is up. To sum them up, the SuperHyperSet of SuperHyperVertices,

$$\{\text{interior SuperHyperVertices}\}_{\text{the number of SuperHyperEdges}},$$

is the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable. Since the SuperHyperSet of the SuperHyperVertices,

$$\{\text{interior SuperHyperVertices}\}_{\text{the number of SuperHyperEdges}},$$

is the SuperHyperSet S s of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common **and** it's a **Failed SuperHyperStable**. Since it's **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There aren't only less than two SuperHyperVertices inside the intended SuperHyperSet,

$$\{\text{interior SuperHyperVertices}\}_{\text{the number of SuperHyperEdges}}.$$

Thus the non-obvious Failed SuperHyperStable,

$$\{\text{interior SuperHyperVertices}\}_{\text{the number of SuperHyperEdges}},$$

is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable,

$$\{\text{interior SuperHyperVertices}\}_{\text{the number of SuperHyperEdges}},$$

is a SuperHyperSet,

$$\{\text{interior SuperHyperVertices}\}_{\text{the number of SuperHyperEdges}},$$

does includes only less than two SuperHyperVertices in a connected neutrosophic SuperHyper-Graph $NSHG : (V, E)$.

- On the Figure 20, the SuperHyperNotion, namely, Failed SuperHyperStable, is up. There's neither empty SuperHyperEdge nor loop SuperHyperEdge. The SuperHyperSet of SuperHyperVertices,

$$\{\text{interior SuperHyperVertices}\}_{\text{the number of SuperHyperEdges}},$$

is the simple type-SuperHyperSet of the Failed SuperHyperStable. The SuperHyperSet of the SuperHyperVertices,

$$\{\text{interior SuperHyperVertices}\}_{\text{the number of SuperHyperEdges}},$$

is **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There're only less than **two** SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious Failed SuperHyperStable **is** up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable is a SuperHyperSet **includes** only less than **two** SuperHyperVertices doesn't form any kind of pairs are titled to **SuperHyperNeighbors** in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. But the SuperHyperSet of SuperHyperVertices,

$$\{\text{interior SuperHyperVertices}\}_{\text{the number of SuperHyperEdges}},$$

doesn't have less than two SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable **is** up. To sum them up, the SuperHyperSet of SuperHyperVertices,

$$\{\text{interior SuperHyperVertices}\}_{\text{the number of SuperHyperEdges}},$$

is the non-obvious simple type-SuperHyperSet of the Failed SuperHyperStable. Since the SuperHyperSet of the SuperHyperVertices,

$$\{\text{interior SuperHyperVertices}\}_{\text{the number of SuperHyperEdges}},$$

is the SuperHyperSet S_s of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common **and** it's a **Failed SuperHyperStable**. Since it's **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. There aren't only less than two SuperHyperVertices **inside** the intended SuperHyperSet,

$$\{\text{interior SuperHyperVertices}\}_{\text{the number of SuperHyperEdges}}.$$

Thus the non-obvious Failed SuperHyperStable,

$$\{\text{interior SuperHyperVertices}\}_{\text{the number of SuperHyperEdges}},$$

is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable,

$$\{\text{interior SuperHyperVertices}\}_{\text{the number of SuperHyperEdges}},$$

is a SuperHyperSet, does includes only less than two SuperHyperVertices in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$.

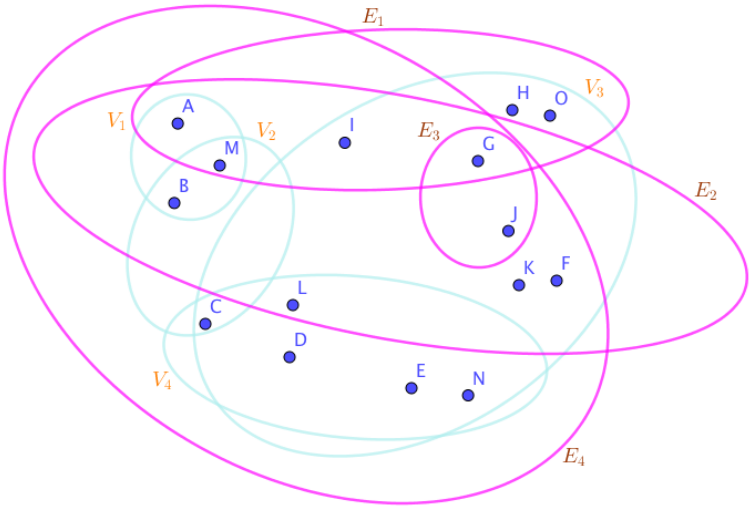


Figure 1. The SuperHyperGraphs Associated to the Notions of Failed SuperHyperStable in the Example (1)

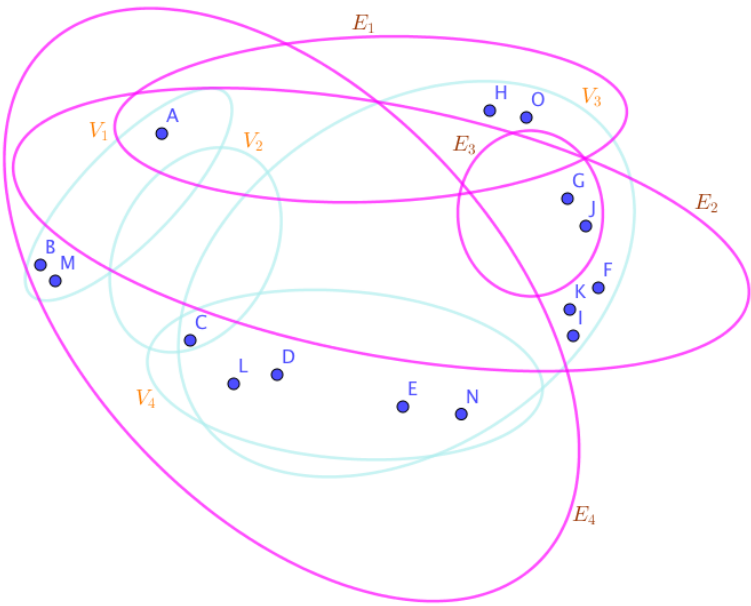


Figure 2. The SuperHyperGraphs Associated to the Notions of Failed SuperHyperStable in the Example (1)

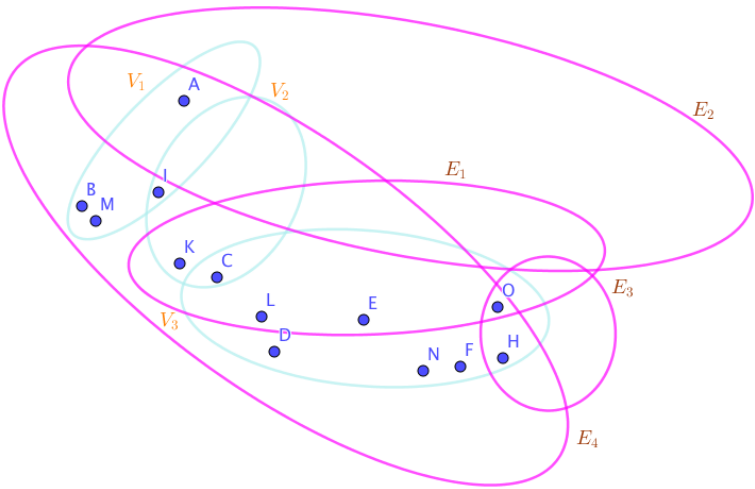


Figure 3. The SuperHyperGraphs Associated to the Notions of Failed SuperHyperStable in the Example (1)

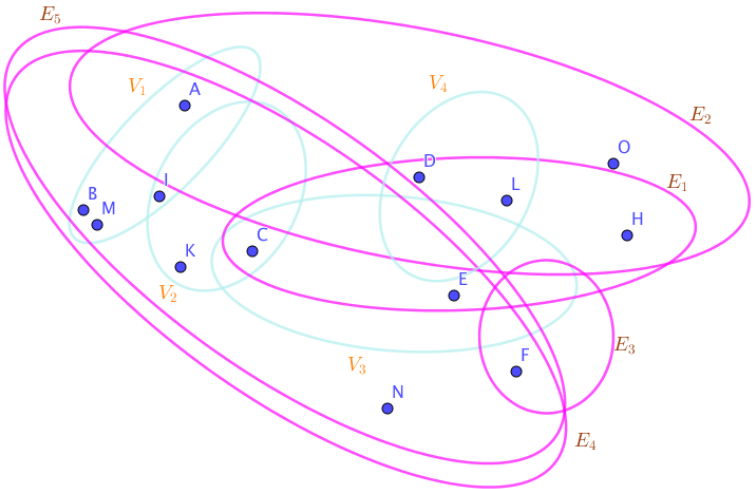


Figure 4. The SuperHyperGraphs Associated to the Notions of Failed SuperHyperStable in the Example (1)

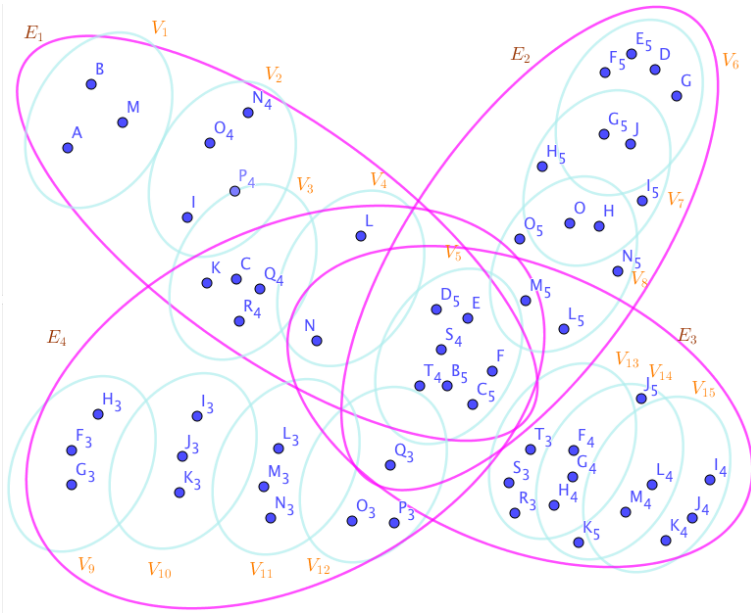


Figure 5. The SuperHyperGraphs Associated to the Notions of Failed SuperHyperStable in the Example (1)

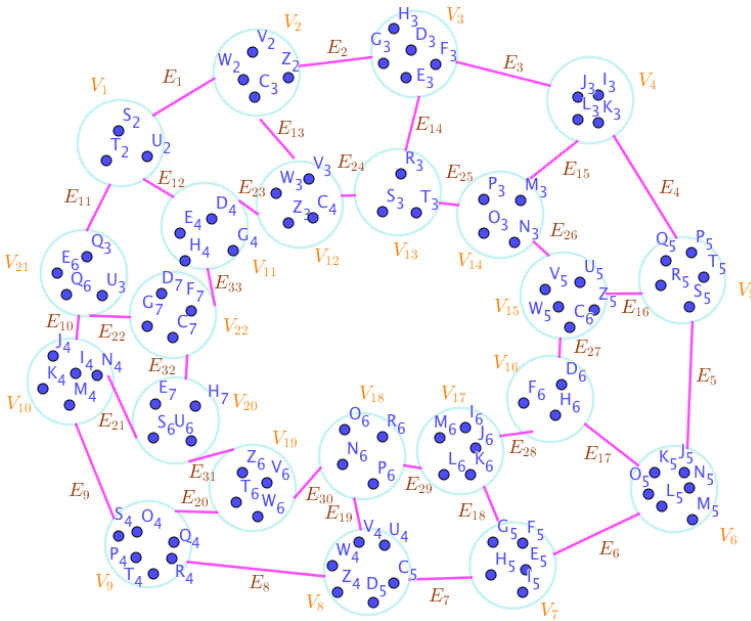


Figure 6. The SuperHyperGraphs Associated to the Notions of Failed SuperHyperStable in the Example (1)

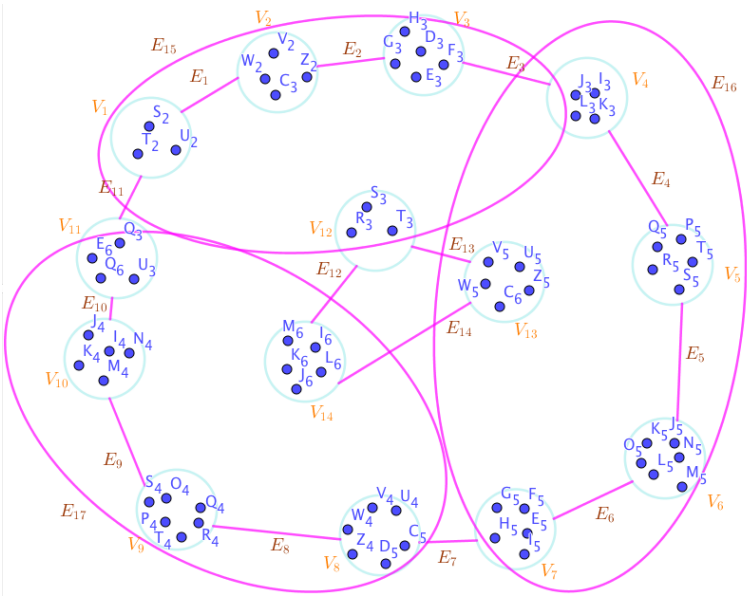


Figure 7. The SuperHyperGraphs Associated to the Notions of Failed SuperHyperStable in the Example (1)

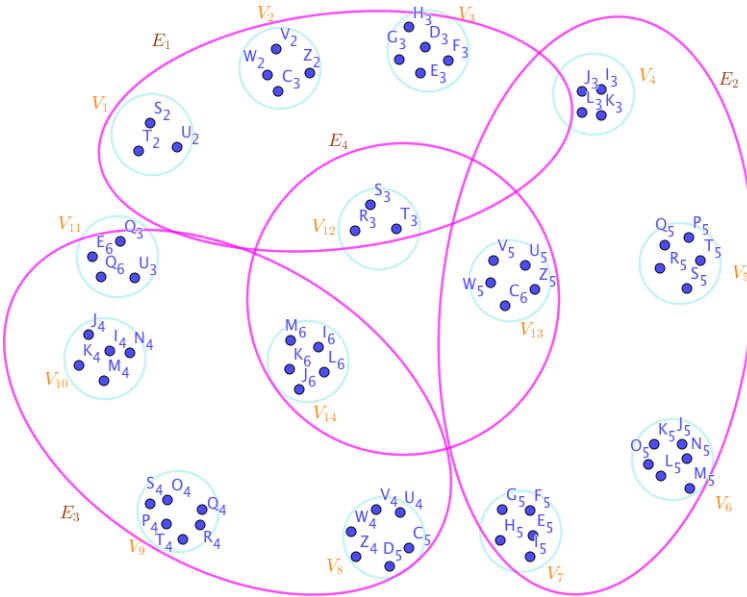


Figure 8. The SuperHyperGraphs Associated to the Notions of Failed SuperHyperStable in the Example (1)

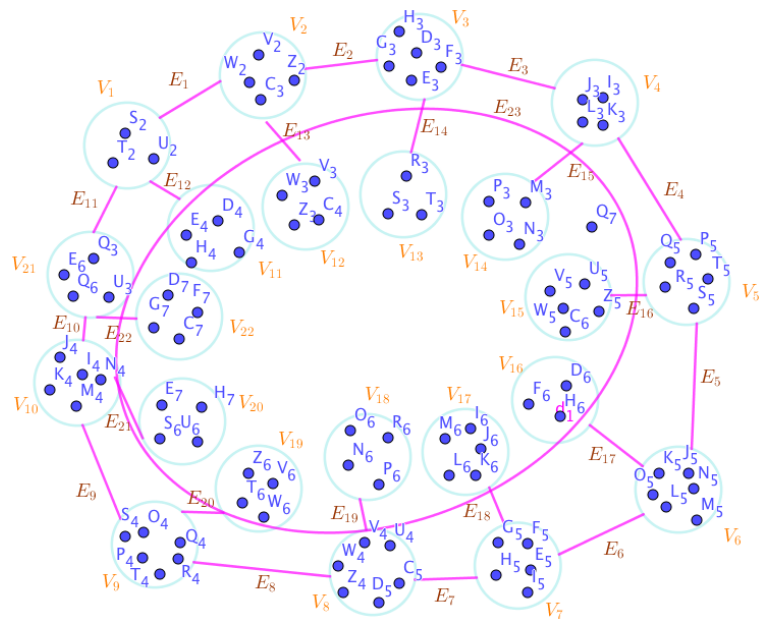


Figure 9. The SuperHyperGraphs Associated to the Notions of Failed SuperHyperStable in the Example (1)

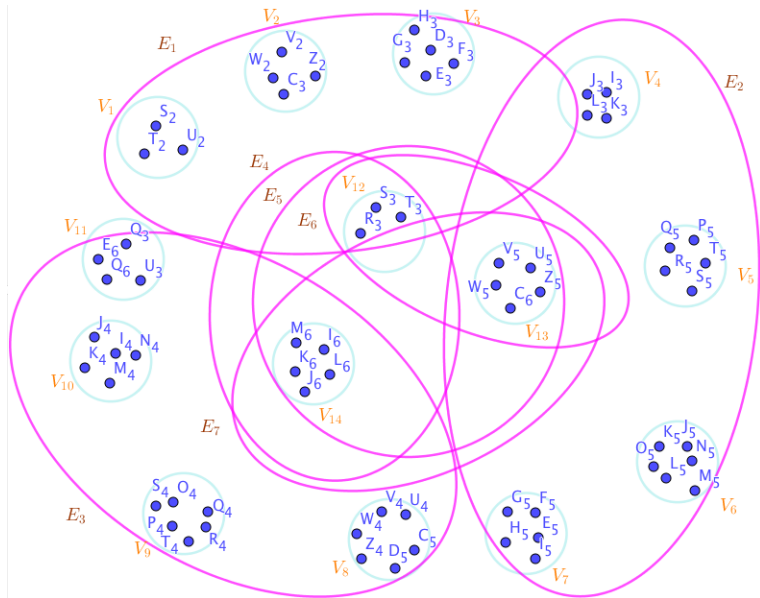


Figure 10. The SuperHyperGraphs Associated to the Notions of Failed SuperHyperStable in the Example (1)

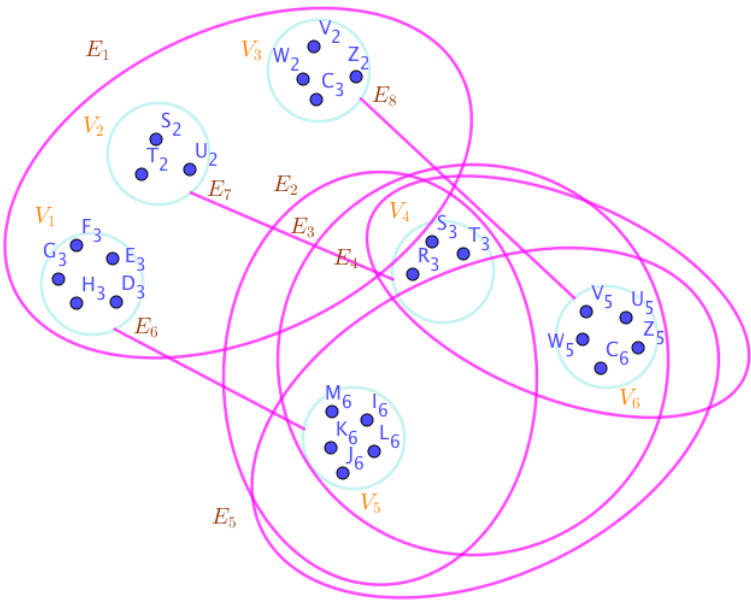


Figure 11. The SuperHyperGraphs Associated to the Notions of Failed SuperHyperStable in the Example (1)

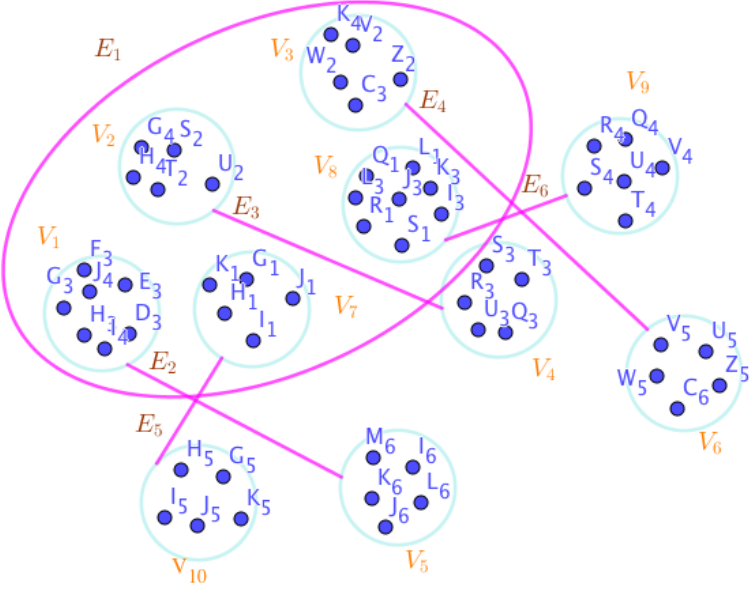


Figure 12. The SuperHyperGraphs Associated to the Notions of Failed SuperHyperStable in the Example (1)

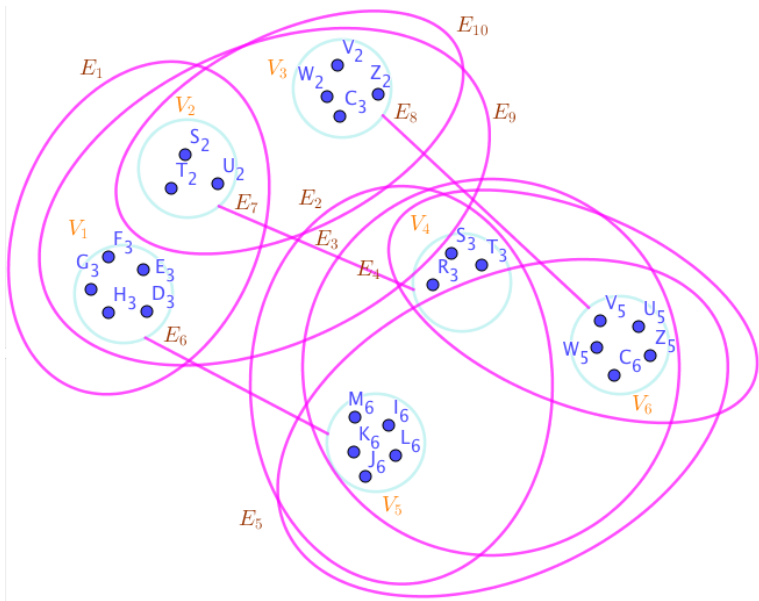


Figure 13. The SuperHyperGraphs Associated to the Notions of Failed SuperHyperStable in the Example (1)

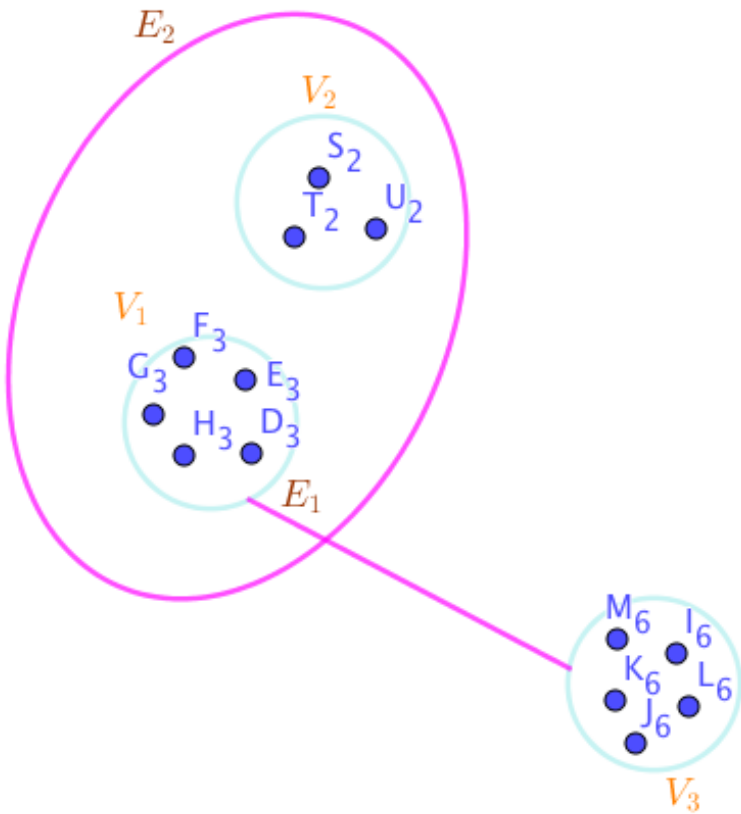


Figure 14. The SuperHyperGraphs Associated to the Notions of Failed SuperHyperStable in the Example (1)

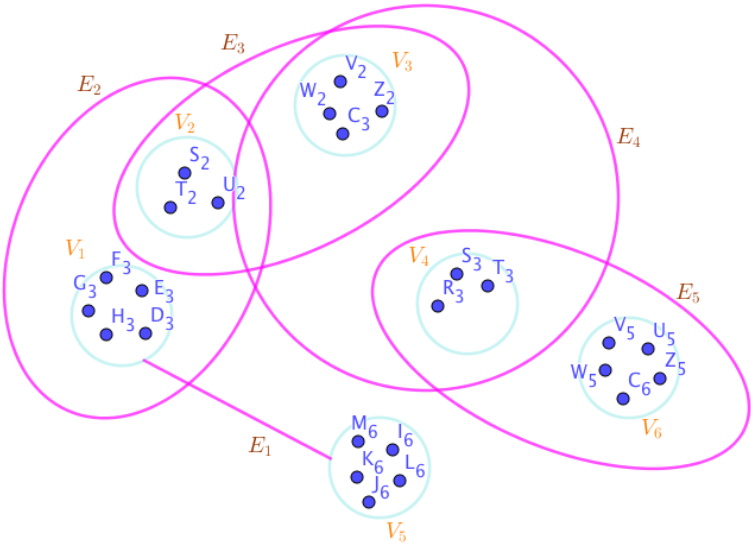


Figure 15. The SuperHyperGraphs Associated to the Notions of Failed SuperHyperStable in the Example (1)

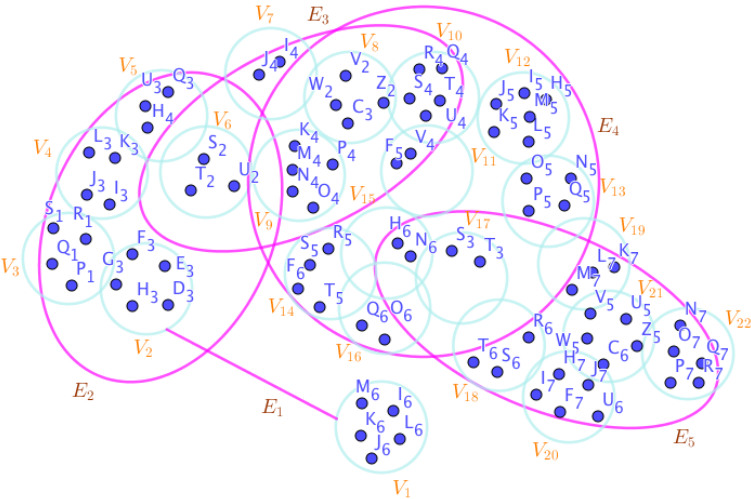


Figure 16. The SuperHyperGraphs Associated to the Notions of Failed SuperHyperStable in the Example (1)

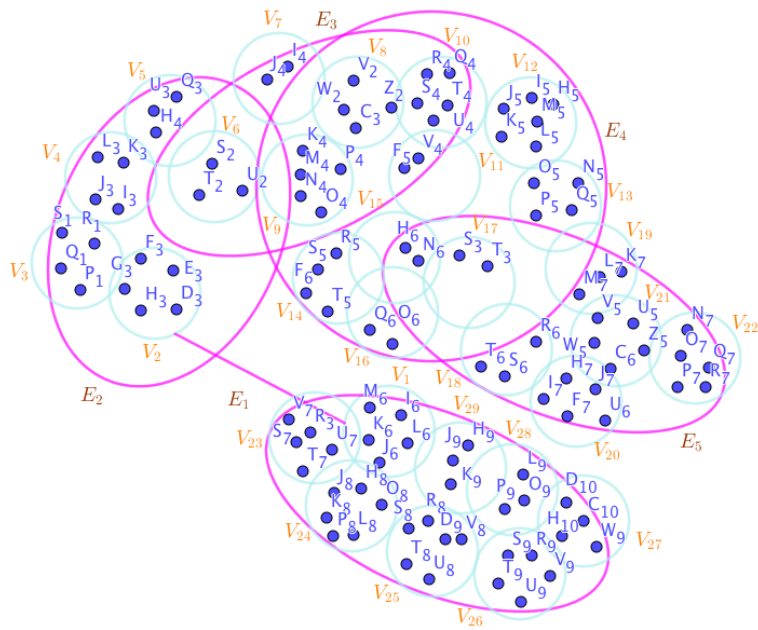


Figure 17. The SuperHyperGraphs Associated to the Notions of Failed SuperHyperStable in the Example (1)

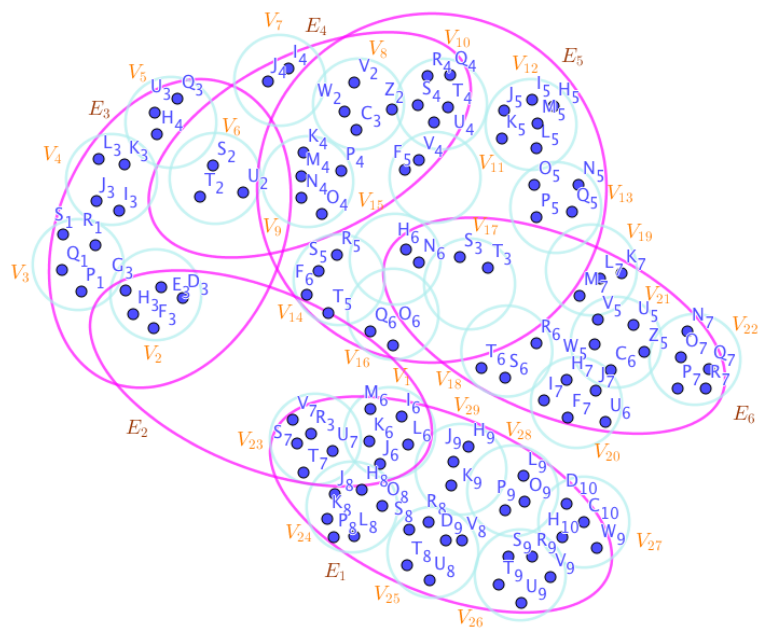


Figure 18. The SuperHyperGraphs Associated to the Notions of Failed SuperHyperStable in the Example (1)

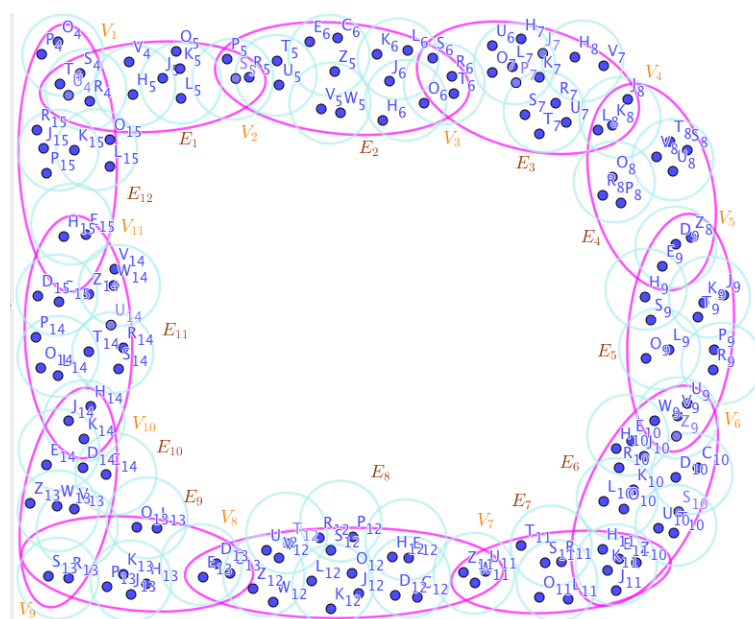


Figure 19. The SuperHyperGraphs Associated to the Notions of Failed SuperHyperStable in the Example (1)

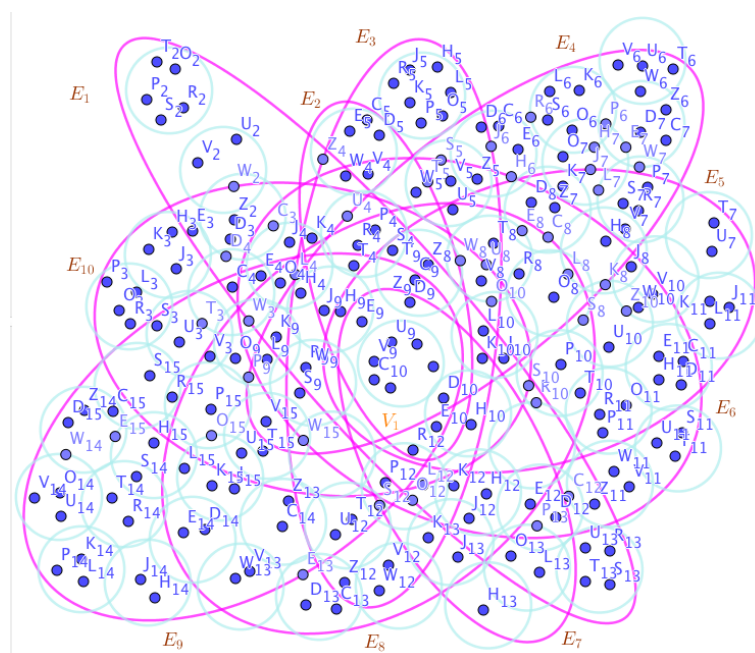


Figure 20. The SuperHyperGraphs Associated to the Notions of Failed SuperHyperStable in the Example (1)

Proposition 43. Assume a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. Then in the worst case, literally, $V \setminus V \setminus \{x, z\}$, is a Failed SuperHyperStable. In other words, the least cardinality, the lower sharp bound for the cardinality, of a Failed SuperHyperStable is the cardinality of $V \setminus V \setminus \{x, z\}$.

Proof. Assume a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. The SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{z\}$ is a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common but it isn't a Failed SuperHyperStable. Since it doesn't have the maximum cardinality of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. The SuperHyperSet of the

SuperHyperVertices $V \setminus V \setminus \{x, y, z\}$ is the maximum cardinality of a SuperHyperSet S of SuperHyperVertices but it isn't a Failed SuperHyperStable. Since it **doesn't do** the procedure such that such that there's a SuperHyperVertex to have a SuperHyperEdge in common. [there'er at least three SuperHyperVertices inside implying there's, sometimes in the connected neutrosophic SuperHyperGraph $NSHG : (V, E)$, a SuperHyperVertex, titled its SuperHyperNeighbor, to that SuperHyperVertex in the SuperHyperSet S so as S doesn't do "the procedure".]. There're only **two** SuperHyperVertices **inside** the intended SuperHyperSet, $V \setminus V \setminus \{x, z\}$. Thus the obvious Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, **is** a SuperHyperSet, $V \setminus V \setminus \{x, z\}$, **includes** only **two** SuperHyperVertices doesn't form any kind of pairs are titled SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. Since the SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{x, z\}$, is the **maximum cardinality** of a SuperHyperSet S of SuperHyperVertices **such that** $V(G)$ there's a SuperHyperVertex to have a SuperHyperEdge in common. \square

Proposition 44. Assume a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. Then the extreme number of Failed SuperHyperStable has, the least cardinality, the lower sharp bound for cardinality, is the extreme cardinality of $V \setminus V \setminus \{x, z\}$ if there's a Failed SuperHyperStable with the least cardinality, the lower sharp bound for cardinality.

Proof. Assume a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. Consider there's a Failed SuperHyperStable with the least cardinality, the lower sharp bound for cardinality. The SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{z\}$ is a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common but it isn't a Failed SuperHyperStable. Since it doesn't have **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. The SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{x, y, z\}$ is the maximum cardinality of a SuperHyperSet S of SuperHyperVertices but it isn't a Failed SuperHyperStable. Since it **doesn't do** the procedure such that such that there's a SuperHyperVertex to have a SuperHyperEdge in common. [there'er at least three SuperHyperVertices inside implying there's, sometimes in the connected neutrosophic SuperHyperGraph $NSHG : (V, E)$, a SuperHyperVertex, titled its SuperHyperNeighbor, to that SuperHyperVertex in the SuperHyperSet S so as S doesn't do "the procedure".]. There're only **two** SuperHyperVertices **inside** the intended SuperHyperSet, $V \setminus V \setminus \{x, z\}$. Thus the obvious Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, **is** a SuperHyperSet, $V \setminus V \setminus \{x, z\}$, **includes** only **two** SuperHyperVertices doesn't form any kind of pairs are titled SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. Since the SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{x, z\}$, is the **maximum cardinality** of a SuperHyperSet S of SuperHyperVertices **such that** $V(G)$ there's a SuperHyperVertex to have a SuperHyperEdge in common. Thus, in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$, the extreme number of Failed SuperHyperStable has, the least cardinality, the lower sharp bound for cardinality, is the extreme cardinality of $V \setminus V \setminus \{x, z\}$ if there's a Failed SuperHyperStable with the least cardinality, the lower sharp bound for cardinality. \square

Proposition 45. Assume a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. If a SuperHyperEdge has z SuperHyperVertices, then $z - 2$ number of those interior SuperHyperVertices from that SuperHyperEdge exclude to any Failed SuperHyperStable.

Proof. Assume a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. Let a SuperHyperEdge has z SuperHyperVertices. Consider $z - 2$ number of those SuperHyperVertices from that SuperHyperEdge exclude to any given SuperHyperSet of the SuperHyperVertices. Consider there's a Failed SuperHyperStable with the least cardinality, the lower sharp bound for cardinality. Assume a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. The SuperHyperSet of the SuperHyper-

Vertices $V \setminus V \setminus \{z\}$ is a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common but it isn't a Failed SuperHyperStable. Since it doesn't have **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. The SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{x, y, z\}$ is the maximum cardinality of a SuperHyperSet S of SuperHyperVertices but it isn't a Failed SuperHyperStable. Since it **doesn't do** the procedure such that there's a SuperHyperVertex to have a SuperHyperEdge in common. [there'er at least three SuperHyperVertices inside implying there's, sometimes in the connected neutrosophic SuperHyperGraph $NSHG : (V, E)$, a SuperHyperVertex, titled its SuperHyperNeighbor, to that SuperHyperVertex in the SuperHyperSet S so as S doesn't do "the procedure".]. There're only **two** SuperHyperVertices **inside** the intended SuperHyperSet, $V \setminus V \setminus \{x, z\}$. Thus the obvious Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, **is** a SuperHyperSet, $V \setminus V \setminus \{x, z\}$, **includes** only **two** SuperHyperVertices doesn't form any kind of pairs are titled SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. Since the SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{x, z\}$, is the **maximum cardinality** of a SuperHyperSet S of SuperHyperVertices **such that** $V(G)$ there's a SuperHyperVertex to have a SuperHyperEdge in common. Thus, in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$, a SuperHyperEdge has z SuperHyperVertices, then $z - 2$ number of those interior SuperHyperVertices from that SuperHyperEdge exclude to any Failed SuperHyperStable. \square

Proposition 46. Assume a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. There's only one SuperHyperEdge has only less than three distinct interior SuperHyperVertices inside of any given Failed SuperHyperStable. In other words, there's only an unique SuperHyperEdge has only two distinct SuperHyperVertices in a Failed SuperHyperStable.

Proof. Assume a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. Let a SuperHyperEdge has some SuperHyperVertices. Consider some numbers of those SuperHyperVertices from that SuperHyperEdge excluding more than two distinct SuperHyperVertices, exclude to any given SuperHyperSet of the SuperHyperVertices. Consider there's Failed SuperHyperStable with the least cardinality, the lower sharp bound for cardinality. Assume a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. The SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{z\}$ is a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common but it isn't a Failed SuperHyperStable. Since it doesn't have **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. The SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{x, y, z\}$ is the maximum cardinality of a SuperHyperSet S of SuperHyperVertices but it isn't a Failed SuperHyperStable. Since it **doesn't do** the procedure such that there's a SuperHyperVertex to have a SuperHyperEdge in common. [there'er at least three SuperHyperVertices inside implying there's, sometimes in the connected neutrosophic SuperHyperGraph $NSHG : (V, E)$, a SuperHyperVertex, titled its SuperHyperNeighbor, to that SuperHyperVertex in the SuperHyperSet S so as S doesn't do "the procedure".]. There're only **two** SuperHyperVertices **inside** the intended SuperHyperSet, $V \setminus V \setminus \{x, z\}$. Thus the obvious Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, **is** a SuperHyperSet, $V \setminus V \setminus \{x, z\}$, **includes** only **two** SuperHyperVertices doesn't form any kind of pairs are titled SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. Since the SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{x, z\}$, is the **maximum cardinality** of a SuperHyperSet S of SuperHyperVertices **such that** $V(G)$ there's a SuperHyperVertex to have a SuperHyperEdge in common. Thus, in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$, there's only one SuperHyperEdge has only less than three distinct interior SuperHyperVertices inside of any given Failed SuperHyperStable. In other

words, there's only an unique SuperHyperEdge has only two distinct SuperHyperVertices in a Failed SuperHyperStable. \square

Proposition 47. *Assume a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. The all interior SuperHyperVertices belong to any Failed SuperHyperStable if for any of them, there's no other corresponded SuperHyperVertex such that the two interior SuperHyperVertices are mutually SuperHyperNeighbors with an exception once.*

Proof. Let a SuperHyperEdge has some SuperHyperVertices. Consider all numbers of those SuperHyperVertices from that SuperHyperEdge excluding more than two distinct SuperHyperVertices, exclude to any given SuperHyperSet of the SuperHyperVertices. Consider there's a Failed SuperHyperStable with the least cardinality, the lower sharp bound for cardinality. Assume a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. The SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{z\}$ is a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common but it isn't a Failed SuperHyperStable. Since it doesn't have **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. The SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{x, y, z\}$ is the maximum cardinality of a SuperHyperSet S of SuperHyperVertices but it isn't a Failed SuperHyperStable. Since it **doesn't do** the procedure such that there's a SuperHyperVertex to have a SuperHyperEdge in common. [there'er at least three SuperHyperVertices inside implying there's, sometimes in the connected neutrosophic SuperHyperGraph $NSHG : (V, E)$, a SuperHyperVertex, titled its SuperHyperNeighbor, to that SuperHyperVertex in the SuperHyperSet S so as S doesn't do "the procedure"]. There're only **two** SuperHyperVertices **inside** the intended SuperHyperSet, $V \setminus V \setminus \{x, z\}$. Thus the obvious Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, **is** a SuperHyperSet, $V \setminus V \setminus \{x, z\}$, **includes** only **two** SuperHyperVertices doesn't form any kind of pairs are titled SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. Since the SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{x, z\}$, is the **maximum cardinality** of a SuperHyperSet S of SuperHyperVertices **such that** $V(G)$ there's a SuperHyperVertex to have a SuperHyperEdge in common. Thus, in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$, the all interior SuperHyperVertices belong to any Failed SuperHyperStable if for any of them, there's no other corresponded SuperHyperVertex such that the two interior SuperHyperVertices are mutually SuperHyperNeighbors with an exception once. \square

Proposition 48. *Assume a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. The any Failed SuperHyperStable only contains all interior SuperHyperVertices and all exterior SuperHyperVertices where there's any of them has no SuperHyperNeighbors in and there's no SuperHyperNeighborhoods in with an exception once but everything is possible about SuperHyperNeighborhoods and SuperHyperNeighbors out.*

Proof. Assume a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. Let a SuperHyperEdge has some SuperHyperVertices. Consider all numbers of those SuperHyperVertices from that SuperHyperEdge excluding more than two distinct SuperHyperVertices, exclude to any given SuperHyperSet of the SuperHyperVertices. Consider there's a Failed SuperHyperStable with the least cardinality, the lower sharp bound for cardinality. Assume a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. The SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{z\}$ is a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common but it isn't a Failed SuperHyperStable. Since it doesn't have **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. The SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{x, y, z\}$ is the maximum cardinality of a SuperHyperSet S of SuperHyperVertices but it isn't a Failed SuperHyperStable. Since it **doesn't do** the procedure such that there's a SuperHyperVertex to have a SuperHyperEdge in common. [there'er at least three SuperHyperVertices inside implying there's, sometimes in the

connected neutrosophic SuperHyperGraph $NSHG : (V, E)$, a SuperHyperVertex, titled its SuperHyperNeighbor, to that SuperHyperVertex in the SuperHyperSet S so as S doesn't do "the procedure".]. There're only **two** SuperHyperVertices **inside** the intended SuperHyperSet, $V \setminus V \setminus \{x, z\}$. Thus the obvious Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, **is** a SuperHyperSet, $V \setminus V \setminus \{x, z\}$, **includes** only **two** SuperHyperVertices doesn't form any kind of pairs are titled SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. Since the SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{x, z\}$, is the **maximum cardinality** of a SuperHyperSet S of SuperHyperVertices **such that** $V(G)$ there's a SuperHyperVertex to have a SuperHyperEdge in common. Thus, in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$, the any Failed SuperHyperStable only contains all interior SuperHyperVertices and all exterior SuperHyperVertices where there's any of them has no SuperHyperNeighbors in and there's no SuperHyperNeighborhoods in with an exception once but everything is possible about SuperHyperNeighborhoods and SuperHyperNeighbors out. \square

Remark 2. The words "Failed SuperHyperStable" and "SuperHyperDominating" both refer to the maximum type-style. In other words, they both refer to the maximum number and the SuperHyperSet with the maximum cardinality.

Proposition 49. Assume a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. Consider a SuperHyperDominating. Then a Failed SuperHyperStable is either out with one additional member.

Proof. Assume a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. Consider a SuperHyperDominating. By applying the Proposition (48), the results are up. Thus on a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$, and in a SuperHyperDominating, a Failed SuperHyperStable is either out with one additional member. \square

6. Results on in Some Specific Extreme Situations Titled Extreme SuperHyperClasses

Proposition 50. Assume a connected SuperHyperPath $NSHP : (V, E)$. Then a Failed SuperHyperStable-style with the maximum SuperHyperCardinality is a SuperHyperSet of the interior SuperHyperVertices.

Proposition 51. Assume a connected SuperHyperPath $NSHP : (V, E)$. Then a Failed SuperHyperStable is a SuperHyperSet of the interior SuperHyperVertices with only all exceptions in the form of interior SuperHyperVertices from the common SuperHyperEdges excluding only two interior SuperHyperVertices from the common SuperHyperEdges. a Failed SuperHyperStable has the number of all the interior SuperHyperVertices minus their SuperHyperNeighborhoods plus one.

Proof. Assume a connected SuperHyperPath $NSHP : (V, E)$. Let a SuperHyperEdge has some SuperHyperVertices. Consider all numbers of those SuperHyperVertices from that SuperHyperEdge excluding more than two distinct SuperHyperVertices, exclude to any given SuperHyperSet of the SuperHyperVertices. Consider there's a Failed SuperHyperStable with the least cardinality, the lower sharp bound for cardinality. Assume a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. The SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{z\}$ is a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common but it isn't a Failed SuperHyperStable. Since it doesn't have **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. The SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{x, y, z\}$ is the maximum cardinality of a SuperHyperSet S of SuperHyperVertices but it isn't a Failed SuperHyperStable. Since it **doesn't do** the procedure such that such that there's a SuperHyperVertex to have a SuperHyperEdge in common. [there'er at least three SuperHyperVertices inside implying there's, sometimes in the connected neutrosophic SuperHyperGraph $NSHG : (V, E)$, a SuperHyperVertex, titled its SuperHyperNeighbor, to that SuperHyperVertex in the SuperHyperSet S so as S doesn't do "the procedure".]. There're

only **two** SuperHyperVertices **inside** the intended SuperHyperSet, $V \setminus V \setminus \{x, z\}$. Thus the obvious Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, **is** a SuperHyperSet, $V \setminus V \setminus \{x, z\}$, **includes** only **two** SuperHyperVertices doesn't form any kind of pairs are titled SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. Since the SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{x, z\}$, is the **maximum cardinality** of a SuperHyperSet S of SuperHyperVertices **such that** $V(G)$ there's a SuperHyperVertex to have a SuperHyperEdge in common. Thus, in a connected SuperHyperPath $NSHP : (V, E)$, a Failed SuperHyperStable is a SuperHyperSet of the interior SuperHyperVertices with only all exceptions in the form of interior SuperHyperVertices from the common SuperHyperEdges excluding only two interior SuperHyperVertices from the common SuperHyperEdges. a Failed SuperHyperStable has the number of all the interior SuperHyperVertices minus their SuperHyper-Neighborhoods plus one. \square

Example 2. In the Figure 21, the connected SuperHyperPath $NSHP : (V, E)$, is highlighted and featured. The SuperHyperSet, $\{V_{27}, V_2, V_7, V_{12}, V_{22}, V_{25}\}$, of the SuperHyperVertices of the connected SuperHyperPath $NSHP : (V, E)$, in the SuperHyperModel (21), is the Failed SuperHyperStable.

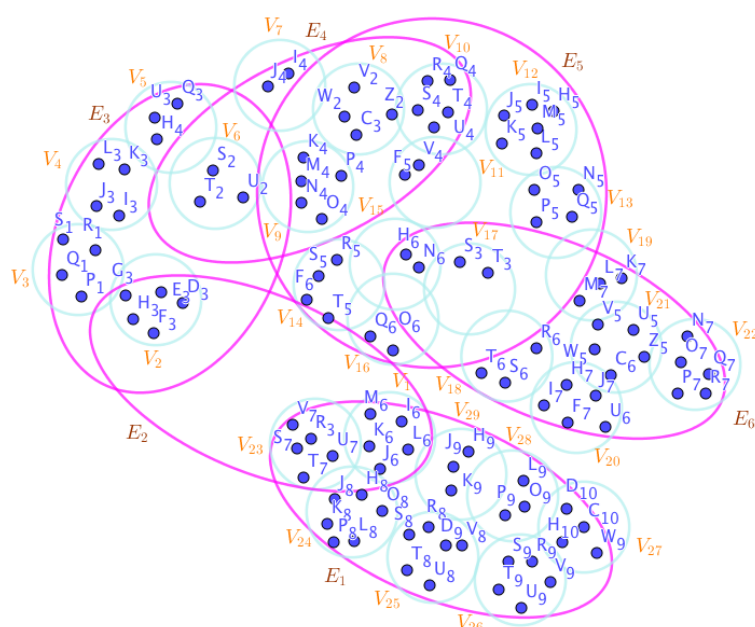


Figure 21. A SuperHyperPath Associated to the Notions of Failed SuperHyperStable in the Example (2)

Proposition 52. Assume a connected SuperHyperCycle $NSHC : (V, E)$. Then a Failed SuperHyperStable is a SuperHyperSet of the interior SuperHyperVertices with only all exceptions in the form of interior SuperHyperVertices from the same SuperHyperNeighborhoods excluding one SuperHyperVertex. a Failed SuperHyperStable has the number of all the SuperHyperEdges plus one and the lower bound is the half number of all the SuperHyperEdges plus one.

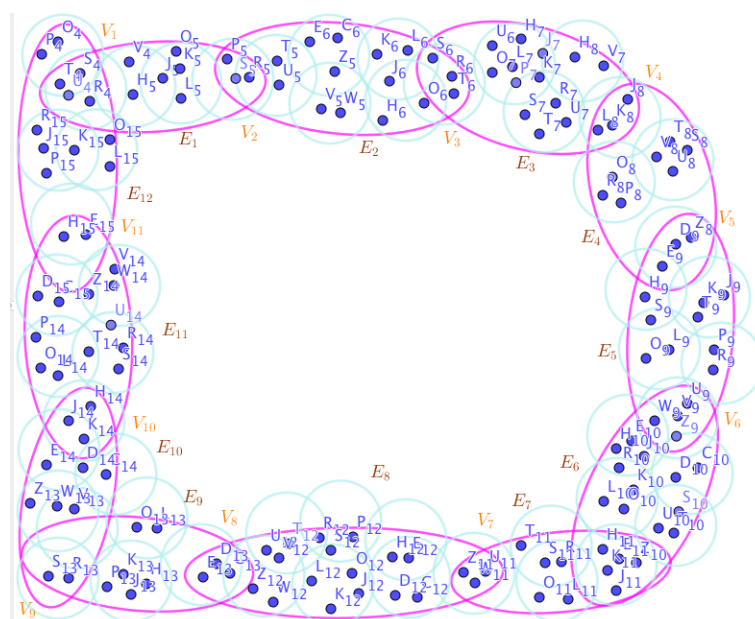
Proof. Assume a connected SuperHyperCycle $NSHC : (V, E)$. Let a SuperHyperEdge has some SuperHyperVertices. Consider all numbers of those SuperHyperVertices from that SuperHyperEdge excluding more than two distinct SuperHyperVertices, exclude to any given SuperHyperSet of the SuperHyperVertices. Consider there's a Failed SuperHyperStable with the least cardinality, the lower sharp bound for cardinality. Assume a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. The SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{z\}$ is a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common but it isn't a Failed

SuperHyperStable. Since it doesn't have **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. The SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{x, y, z\}$ is the maximum cardinality of a SuperHyperSet S of SuperHyperVertices but it isn't a Failed SuperHyperStable. Since it **doesn't do** the procedure such that there's a SuperHyperVertex to have a SuperHyperEdge in common. [there'er at least three SuperHyperVertices inside implying there's, sometimes in the connected neutrosophic SuperHyperGraph $NSHG : (V, E)$, a SuperHyperVertex, titled its SuperHyperNeighbor, to that SuperHyperVertex in the SuperHyperSet S so as S doesn't do "the procedure".]. There're only **two** SuperHyperVertices **inside** the intended SuperHyperSet, $V \setminus V \setminus \{x, z\}$. Thus the obvious Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, **is** a SuperHyperSet, $V \setminus V \setminus \{x, z\}$, **includes** only **two** SuperHyperVertices doesn't form any kind of pairs are titled SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. Since the SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{x, z\}$, is the **maximum cardinality** of a SuperHyperSet S of SuperHyperVertices **such that** $V(G)$ there's a SuperHyperVertex to have a SuperHyperEdge in common. Thus, in a connected SuperHyperCycle $NSHC : (V, E)$, a Failed SuperHyperStable is a SuperHyperSet of the interior SuperHyperVertices with only all exceptions in the form of interior SuperHyperVertices from the same SuperHyperNeighborhoods excluding one SuperHyperVertex. a Failed SuperHyperStable has the number of all the SuperHyperEdges plus one and the lower bound is the half number of all the SuperHyperEdges plus one. \square

Example 3. In the Figure 22, the connected SuperHyperCycle $NSHC : (V, E)$, is highlighted and featured. The obtained SuperHyperSet, by the Algorithm in previous result, of the SuperHyperVertices of the connected SuperHyperCycle $NSHC : (V, E)$, in the SuperHyperModel (22),

$$\begin{aligned} & \{\{P_{13}, J_{13}, K_{13}, H_{13}\}, \\ & \{Z_{13}, W_{13}, V_{13}\}, \{U_{14}, T_{14}, R_{14}, S_{14}\}, \\ & \{P_{15}, J_{15}, K_{15}, R_{15}\}, \\ & \{J_5, O_5, K_5, L_5\}, \{J_5, O_5, K_5, L_5\}, V_3, \\ & \{U_6, H_7, J_7, K_7, O_7, L_7, P_7\}, \{T_8, U_8, V_8, S_8\}, \\ & \{T_9, K_9, J_9\}, \{H_{10}, J_{10}, E_{10}, R_{10}, W_9\}, \\ & \{S_{11}, R_{11}, O_{11}, L_{11}\}, \\ & \{U_{12}, V_{12}, W_{12}, Z_{12}, O_{12}\}, \\ & \{S_7, T_7, R_7, U_7\}\}, \end{aligned}$$

is the Failed SuperHyperStable.



Proposition 53. Assume a connected SuperHyperStar NSHS : (V, E) . Then a Failed SuperHyperStable is a SuperHyperSet of the interior SuperHyperVertices, excluding the SuperHyperCenter, with only all exceptions in the form of interior SuperHyperVertices from common SuperHyperEdge, excluding only one SuperHyperVertex. a Failed SuperHyperStable has the number of the cardinality of the second SuperHyperPart plus one.

Proof. Assume a connected SuperHyperStar $NSHS : (V, E)$. Let a SuperHyperEdge has some SuperHyperVertices. Consider all numbers of those SuperHyperVertices from that SuperHyperEdge excluding more than two distinct SuperHyperVertices, exclude to any given SuperHyperSet of the SuperHyperVertices. Consider there's a Failed SuperHyperStable with the least cardinality, the lower sharp bound for cardinality. Assume a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. The SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{z\}$ is a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common but it isn't a Failed SuperHyperStable. Since it doesn't have the maximum cardinality of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. The SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{x, y, z\}$ is the maximum cardinality of a SuperHyperSet S of SuperHyperVertices but it isn't a Failed SuperHyperStable. Since it doesn't do the procedure such that such that there's a SuperHyperVertex to have a SuperHyperEdge in common. [there'er at least three SuperHyperVertices inside implying there's, sometimes in the connected neutrosophic SuperHyperGraph $NSHG : (V, E)$, a SuperHyperVertex, titled its SuperHyperNeighbor, to that SuperHyperVertex in the SuperHyperSet S so as S doesn't do "the procedure".]. There're only two SuperHyperVertices inside the intended SuperHyperSet, $V \setminus V \setminus \{x, z\}$. Thus the obvious Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, is a SuperHyperSet, $V \setminus V \setminus \{x, z\}$, includes only two SuperHyperVertices doesn't form any kind of pairs are titled SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. Since the SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{x, z\}$, is the maximum cardinality of a SuperHyperSet S of SuperHyperVertices such that $V(G)$ there's a SuperHyperVertex to have a SuperHyperEdge in common. Thus, in a connected SuperHyperStar $NSHS : (V, E)$, a Failed SuperHyperStable is a SuperHyperSet of the interior SuperHyperVertices, excluding the SuperHyperCenter, with only all exceptions in the form of interior SuperHyperVertices

from common SuperHyperEdge, excluding only one SuperHyperVertex. a Failed SuperHyperStable has the number of the cardinality of the second SuperHyperPart plus one. \square

Example 4. In the Figure 23, the connected SuperHyperStar NSHS : (V, E) , is highlighted and featured. The obtained SuperHyperSet, by the Algorithm in previous result, of the SuperHyperVertices of the connected SuperHyperStar NSHS : (V, E) , in the SuperHyperModel (23),

$$\begin{aligned} & \{ \{V_{14}, O_{14}, U_{14}\}, \\ & \{W_{14}, D_{15}, Z_{14}, C_{15}, E_{15}\}, \\ & \{P_3, O_3, R_3, L_3, S_3\}, \{P_2, T_2, S_2, R_2, O_2\}, \\ & \{O_6, O_7, K_7, P_6, H_7, J_7, E_7, L_7\}, \\ & \{J_8, Z_{10}, W_{10}, V_{10}\}, \{W_{11}, V_{11}, Z_{11}, C_{12}\}, \\ & \{U_{13}, T_{13}, R_{13}, S_{13}\}, \{H_{13}\}, \\ & \{E_{13}, D_{13}, C_{13}, Z_{12}\}, \} \end{aligned}$$

is the Failed SuperHyperStable.

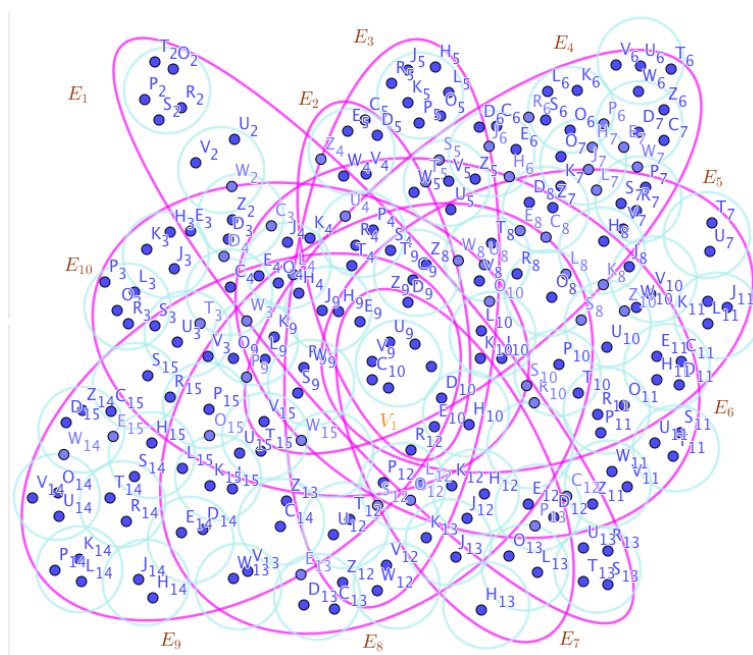


Figure 23. A SuperHyperStar Associated to the Notions of Failed SuperHyperStable in the Example (4)

Proposition 54. Assume a connected SuperHyperBipartite NSHB : (V, E) . Then a Failed SuperHyperStable is a SuperHyperSet of the interior SuperHyperVertices with only all exceptions in the form of interior SuperHyperVertices titled SuperHyperNeighbors with only one exception. a Failed SuperHyperStable has the number of the cardinality of the first SuperHyperPart multiplies with the cardinality of the second SuperHyperPart plus one.

Proof. Assume a connected SuperHyperBipartite NSHB : (V, E) . Let a SuperHyperEdge has some SuperHyperVertices. Consider all numbers of those SuperHyperVertices from that SuperHyperEdge excluding more than two distinct SuperHyperVertices, exclude to any given SuperHyperSet of the SuperHyperVertices. Consider there's a Failed SuperHyperStable with the least cardinality, the lower sharp bound for cardinality. Assume a connected neutrosophic SuperHyperGraph NSHG : (V, E) . The SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{z\}$ is a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common but it isn't a Failed

SuperHyperStable. Since it doesn't have **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. The SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{x, y, z\}$ is the maximum cardinality of a SuperHyperSet S of SuperHyperVertices but it isn't a Failed SuperHyperStable. Since it **doesn't do** the procedure such that there's a SuperHyperVertex to have a SuperHyperEdge in common. [there're at least three SuperHyperVertices inside implying there's, sometimes in the connected neutrosophic SuperHyperGraph $NSHG : (V, E)$, a SuperHyperVertex, titled its SuperHyperNeighbor, to that SuperHyperVertex in the SuperHyperSet S so as S doesn't do "the procedure".]. There're only **two** SuperHyperVertices **inside** the intended SuperHyperSet, $V \setminus V \setminus \{x, z\}$. Thus the obvious Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, **is** a SuperHyperSet, $V \setminus V \setminus \{x, z\}$, **includes** only **two** SuperHyperVertices doesn't form any kind of pairs are titled SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. Since the SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{x, z\}$, is the **maximum cardinality** of a SuperHyperSet S of SuperHyperVertices **such that** $V(G)$ there's a SuperHyperVertex to have a SuperHyperEdge in common. Thus, in a connected SuperHyperBipartite $NSHB : (V, E)$, a Failed SuperHyperStable is a SuperHyperSet of the interior SuperHyperVertices with only all exceptions in the form of interior SuperHyperVertices titled SuperHyperNeighbors with only one exception. a Failed SuperHyperStable has the number of the cardinality of the first SuperHyperPart multiplies with the cardinality of the second SuperHyperPart plus one. \square

Example 5. In the Figure 24, the connected SuperHyperBipartite $NSHB : (V, E)$, is highlighted and featured. The obtained SuperHyperSet, by the Algorithm in previous result, of the SuperHyperVertices of the connected SuperHyperBipartite $NSHB : (V, E)$, in the SuperHyperModel (24),

$$\{V_1, \{C_4, D_4, E_4, H_4\}, \\ \{K_4, J_4, L_4, O_4\}, \{W_2, Z_2, C_3\}, \{C_{13}, Z_{12}, V_{12}, W_{12}\},$$

is the Failed SuperHyperStable.

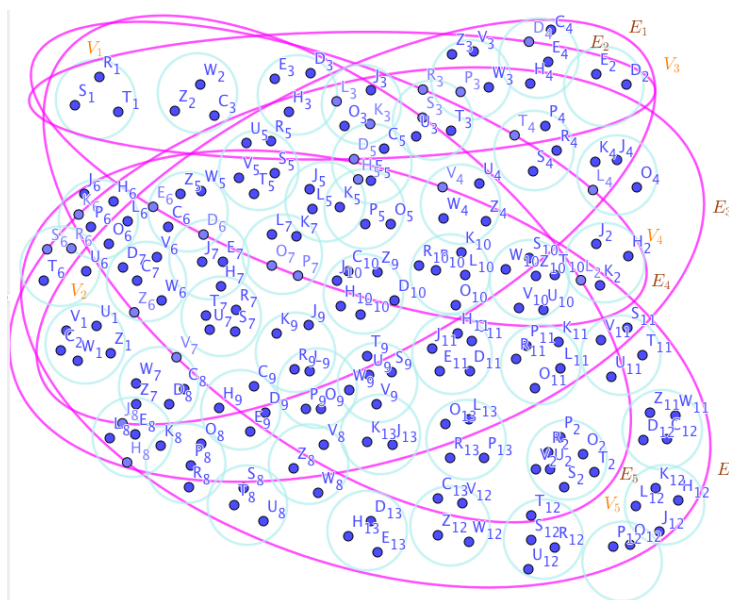


Figure 24. A SuperHyperBipartite Associated to the Notions of Failed SuperHyperStable in the Example (5)

Proposition 55. Assume a connected SuperHyperMultipartite $NSHM : (V, E)$. Then a Failed SuperHyperStable is a SuperHyperSet of the interior SuperHyperVertices with only one exception in the form of interior

SuperHyperVertices from a SuperHyperPart and only one exception in the form of interior SuperHyperVertices from another SuperHyperPart titled “SuperHyperNeighbors” with neglecting and ignoring one of them. a Failed SuperHyperStable has the number of all the summation on the cardinality of the all SuperHyperParts form distinct SuperHyperEdges plus one.

Proof. Assume a connected SuperHyperMultipartite $NSHM : (V, E)$. Let a SuperHyperEdge has some SuperHyperVertices. Consider all numbers of those SuperHyperVertices from that SuperHyperEdge excluding more than two distinct SuperHyperVertices, exclude to any given SuperHyperSet of the SuperHyperVertices. Consider there's a Failed SuperHyperStable with the least cardinality, the lower sharp bound for cardinality. Assume a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. The SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{z\}$ is a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common but it isn't a Failed SuperHyperStable. Since it doesn't have the maximum cardinality of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. The SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{x, y, z\}$ is the maximum cardinality of a SuperHyperSet S of SuperHyperVertices but it isn't a Failed SuperHyperStable. Since it **doesn't do** the procedure such that such that there's a SuperHyperVertex to have a SuperHyperEdge in common. [there'er at least three SuperHyperVertices inside implying there's, sometimes in the connected neutrosophic SuperHyperGraph $NSHG : (V, E)$, a SuperHyperVertex, titled its SuperHyperNeighbor, to that SuperHyperVertex in the SuperHyperSet S so as S doesn't do “the procedure”]. There're only **two** SuperHyperVertices inside the intended SuperHyperSet, $V \setminus V \setminus \{x, z\}$. Thus the obvious Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, is a SuperHyperSet, $V \setminus V \setminus \{x, z\}$, includes only **two** SuperHyperVertices doesn't form any kind of pairs are titled SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. Since the SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{x, z\}$, is the maximum cardinality of a SuperHyperSet S of SuperHyperVertices such that $V(G)$ there's a SuperHyperVertex to have a SuperHyperEdge in common. Thus, in a connected SuperHyperMultipartite $NSHM : (V, E)$, a Failed SuperHyperStable is a SuperHyperSet of the interior SuperHyperVertices with only one exception in the form of interior SuperHyperVertices from a SuperHyperPart and only one exception in the form of interior SuperHyperVertices from another SuperHyperPart titled “SuperHyperNeighbors” with neglecting and ignoring one of them. a Failed SuperHyperStable has the number of all the summation on the cardinality of the all SuperHyperParts form distinct SuperHyperEdges plus one. \square

Example 6. In the Figure 25, the connected SuperHyperMultipartite $NSHM : (V, E)$, is highlighted and featured. The obtained SuperHyperSet, by the Algorithm in previous result, of the SuperHyperVertices of the connected SuperHyperMultipartite $NSHM : (V, E)$,

$$\begin{aligned} & \{\{L_4, E_4, O_4, D_4, J_4, K_4, H_4\}, \\ & \{S_{10}, R_{10}, P_{10}\}, \\ & \{Z_7, W_7\}, \{U_7, V_7\}\}, \end{aligned}$$

in the SuperHyperModel (25), is the Failed SuperHyperStable.

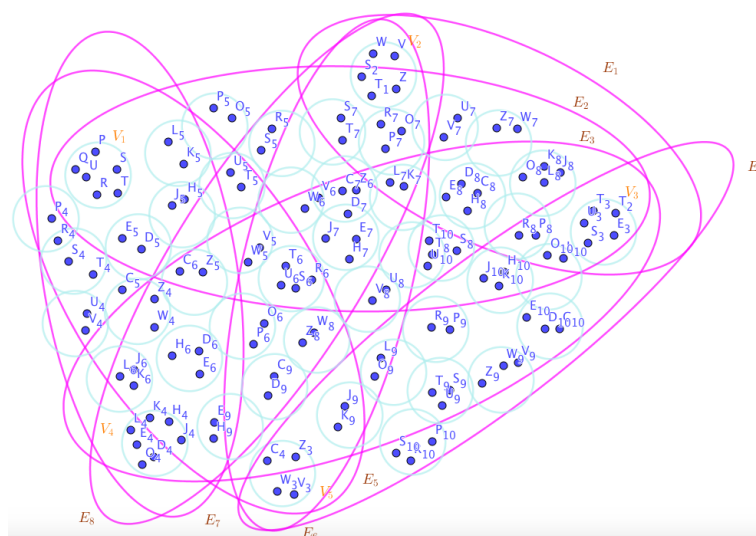


Figure 25. A SuperHyperMultipartite Associated to the Notions of Failed SuperHyperStable in the Example (6)

Proposition 56. Assume a connected SuperHyperWheel $NSHW : (V, E)$. Then a Failed SuperHyperStable is a SuperHyperSet of the interior SuperHyperVertices, excluding the SuperHyperCenter, with only one exception in the form of interior SuperHyperVertices from same SuperHyperEdge with the exclusion once. a Failed SuperHyperStable has the number of all the number of all the SuperHyperEdges have no common SuperHyperNeighbors for a SuperHyperVertex with the exclusion once.

Proof. Assume a connected SuperHyperWheel $NSHW : (V, E)$. Let a SuperHyperEdge has some SuperHyperVertices. Consider all numbers of those SuperHyperVertices from that SuperHyperEdge excluding more than two distinct SuperHyperVertices, exclude to any given SuperHyperSet of the SuperHyperVertices. Consider there's a Failed SuperHyperStable with the least cardinality, the lower sharp bound for cardinality. Assume a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. The SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{z\}$ is a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common but it isn't a Failed SuperHyperStable. Since it doesn't have **the maximum cardinality** of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common. The SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{x, y, z\}$ is the maximum cardinality of a SuperHyperSet S of SuperHyperVertices but it isn't a Failed SuperHyperStable. Since it **doesn't do** the procedure such that there's a SuperHyperVertex to have a SuperHyperEdge in common. [there'er at least three SuperHyperVertices inside implying there's, sometimes in the connected neutrosophic SuperHyperGraph $NSHG : (V, E)$, a SuperHyperVertex, titled its SuperHyperNeighbor, to that SuperHyperVertex in the SuperHyperSet S so as S doesn't do "the procedure".]. There're only **two** SuperHyperVertices **inside** the intended SuperHyperSet, $V \setminus V \setminus \{x, z\}$. Thus the obvious Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, is up. The obvious simple type-SuperHyperSet of the Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, **is** a SuperHyperSet, $V \setminus V \setminus \{x, z\}$, **includes** only **two** SuperHyperVertices doesn't form any kind of pairs are titled SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph $NSHG : (V, E)$. Since the SuperHyperSet of the SuperHyperVertices $V \setminus V \setminus \{x, z\}$, is the **maximum cardinality** of a SuperHyperSet S of SuperHyperVertices **such that** $V(G)$ there's a SuperHyperVertex to have a SuperHyperEdge in common. Thus, in a connected SuperHyperWheel $NSHW : (V, E)$, a Failed SuperHyperStable is a SuperHyperSet of the interior SuperHyperVertices, excluding the SuperHyperCenter, with only one exception in the form of interior SuperHyperVertices from same SuperHyperEdge with the exclusion once. a Failed SuperHyperStable has the number of all the number of all the SuperHyperEdges have no common SuperHyperNeighbors for a SuperHyperVertex with the exclusion once. \square

$$\begin{aligned} &\{V_5, \\ &\{Z_{13}, W_{13}, U_{13}, V_{13}, O_{14}\}, \\ &\{T_{10}, K_{10}, J_{10}\}, \\ &\{E_7, C_7, Z_6\}, \{K_7, J_7, L_7\}, \\ &\{T_{14}, U_{14}, R_{15}, S_{15}\}\}, \end{aligned}$$

Problem 3. *What's the independent research based on Cancer's recognitions concerning the multiple types of SuperHyperNotions?*

8. Conclusion and Closing Remarks

In this research, the cancer is chosen as an phenomenon. Some general approaches are applied on it. Beyond that, some general arrangements of the situations are redefined alongside detailed-oriented illustrations, clarifications, analysis on the featured dense figures. The research proposes theoretical results on the cancer and mentioned cases only give us the perspective on the theoretical aspect with enriched background of the the mathematical framework arise from Extreme Failed SuperHyperClique theory, Neutrosophic Failed SuperHyperClique theory, and (Neutrosophic) SuperHyperGraphs theory. In the Table 1, the structures of this research on what’s done and what’ll be Done are pointed out and figured out.

Table 1. The Structures of This Research On What’s Done and What’ll be Done

What’s Done	What’ll be Done
1. New Generating Neutrosophic SuperHyperGraph	1. Overall Hypothesis
2. Failed SuperHyperStable	
3. Neutrosophic Failed SuperHyperStable	2. Cancer’s SuperHyperNumbers
4. Scheme of Cancer’s Recognitions	
5. New Reproductions	3. SuperHyperFamilies-types

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