[illegible]

[illegible]

[illegible]

$split(S, Q)$

[illegible] $S \subset U$ [illegible] U [illegible] R [illegible] U [illegible] $R \subset U \times U$ [illegible] Q [illegible] U [illegible]

$$split(S, Q) = \begin{cases} B & \text{se B è un blocco di Q stabile rispetto a S (rispetto a R)} \\ \{B \cap R^{-1}(S), B - R^{-1}(S)\} & \text{altrimenti} \end{cases}$$

[illegible] S [illegible] Q [illegible] $split(S, Q) \neq Q$ [illegible]

[illegible]

1. S [illegible] $Q \iff split(S, Q) \neq Q \iff Q$ [illegible] S
2. [illegible] Q' [illegible] Q [illegible] Q [illegible] $S \implies Q'$ [illegible] S
3. [illegible] Q [illegible] $S_1, S_2 \implies Q$ [illegible] $S_1 \cup S_2$
4. [illegible] Q' [illegible] $Q \implies split(S, Q')$ [illegible] $split(S, Q)$
5. [illegible] $split(S, split(Q, P)) = split(Q, split(S, P))$

[illegible]

[illegible] S [illegible] $S = \alpha \cup \beta$ [illegible] α, β [illegible] Q [illegible] S [illegible] Q [illegible] Q [illegible] $split(S, Q)$ [illegible]

[illegible]

[illegible]

[illegible] P [illegible] U [illegible] B [illegible]

$$B' = B \cap E^{-1}(U), \qquad B'' = B - E^{-1}(U)$$

[illegible] B'' [illegible] $x : \nexists y \in U : E(x, y)$ [illegible] $split$ [illegible] U [illegible] $S \subset U$ [illegible] $B'' \cap E^{-1}(S) = \emptyset$ [illegible] B''

[illegible]

[illegible] B' [illegible] $E^{-1}(U)$ [illegible] B'' [illegible]

[illegible] X, Q [illegible] U [illegible] Q [illegible] X [illegible] Q [illegible] X [illegible] $Q = P, X = U$ [illegible] X [illegible] $Q = X$

5. [illegible] $S \in X : S \notin Q$
6. [illegible] $B \in Q : B \subset S \wedge |B| \leq \frac{|S|}{2}$
7. [illegible] S [illegible] X [illegible] $B, S - B$
8. [illegible] B [illegible] Q [illegible] $split(S - B, split(B, Q))$

[illegible] $O(mn)$ [illegible]

[illegible]

[illegible]

$$\forall x \in U |E(\{x\})| = 1, \text{cioè } \forall x \ \ \exists! y \in U : E(x, y) \qquad (1)$$

[illegible] Q [illegible] U [illegible] $S = \cup_{i=1}^{n} b_i$ [illegible] $b_i \in Q$ [illegible] Q [illegible] S [illegible] $B \subset S$ [illegible]

[illegible]

$$split(B, Q) \text{ è stabile rispetto a } S - B$$

[illegible] $B_1 \in Q$ [illegible]

- [illegible] B_1 [illegible] Q [illegible] B [illegible] B_1 [illegible]
  - $B_1 \subset E^{-1}(B) \implies B_1 \cap E^{-1}(S - B) = \emptyset$ [illegible] $B \cap S - B = \emptyset$ [illegible] (1)
  - $B_1 \cap E^{-1}(B) = \emptyset$ [illegible] B_1 [illegible] Q [illegible] S
    - [illegible] $B_1 \subset E^{-1}(S)$ [illegible] $B_1 \cap E^{-1}(B) = \emptyset$ [illegible] $B \subset S$
    - $B_1 \cap E^{-1}(S) = \emptyset \implies B_1 \cap E^{-1}(S - B) = \emptyset$
- [illegible] B_1 [illegible]
  - $B_1 = \widetilde{B} \cap E^{-1}(B)$ [illegible] $\widetilde{B} \in Q \implies$ [illegible] $B_1 \cap E^{-1}(S - B) = \emptyset$ [illegible]
  - $B_1 = \widetilde{B} - E^{-1}(B)$ [illegible] $\widetilde{B} \in Q$
    - $\widetilde{B} \subset E^{-1}(S) \implies \widetilde{B} - E^{-1}(B) \subset E^{-1}(S - B)$

- $\widetilde{B} \cap E^{-1}(S) = \emptyset \implies \widetilde{B} \cap E^{-1}(B) = \emptyset \implies B_1 = \widetilde{B} - E^{-1}(B) = \widetilde{B}$ή

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