Calculs d'invariants et applications

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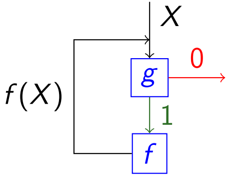


Figure – Boucle simple

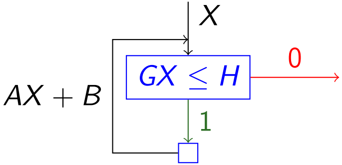


Figure – Boucle linéaire

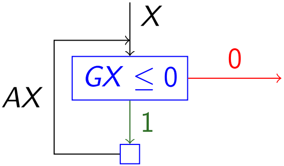
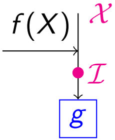


Figure – Boucle linéaire homogène



$$\mathcal{I} = \mathcal{X} \cup \{f(X), X \in \mathcal{I}, g(X) = 1\}$$

$$\mathcal{F}(f,g) : \begin{array}{ccc} \mathcal{P}(\mathcal{M}_{n,1}(K)) & \longrightarrow & \mathcal{P}(\mathcal{M}_{n,1}(K)) \\ \mathcal{A} & \longmapsto & \mathcal{X} \cup \{f(X), X \in \mathcal{A}, g(X) = 1\} \end{array}$$

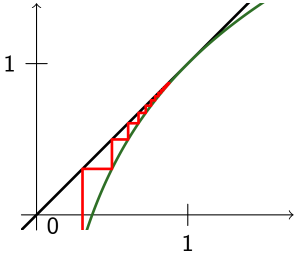
$$\mathcal{I} = \mathrm{lfp}(\mathcal{F}(f,g)) = \bigcup_{n \in \mathbb{N}} \mathcal{F}(f,g)^n(\mathcal{X})$$

$$(D, \leq) \xleftarrow{\gamma} (A, \leq)$$

$(D, \leq) = (\mathcal{P}(\mathcal{M}_{n,1}(\mathbb{R})), \subset)$
$(A, \leq) = (\mathcal{CP}(\mathcal{M}_{n,1}(\mathbb{R})), \subset)$
$\gamma = id_A$

$$\bigcap_{i=1}^{n} f_i^{-1}(]-\infty, a_i]) = conv(A) + cone(U)$$

$$(conv(A)+cone(U)) \sqcup (conv(B)+cone(V)) = conv(A \cup B)+cone(U \cup V)$$



$$\left(\bigcap_{H \in P} H\right) \nabla \left(\bigcap_{H \in Q} H\right) = \bigcap_{H \in P \cap Q} H$$

$$M_1 = conv(V_1) + cone(R_1)$$
$$M_2 = conv(V_2) + cone(R_2)$$

$$M_1 M_2 \subset conv(V_1 V_2) + cone(V_1 R_2 + V_2 R_1 + R_1 R_2)$$