

# Hoo-Doo Solver

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**Abstract.** Este projecto consiste na implementao de um *solver* para o jogo de tabuleiro *Hoo-Doo*. O solver funciona para uma dimenso arbitria do tabuleiro. A implementao foi feita usando Prolog, mas concretamente a plataforma *Sicstus Prolog* tendo sido usados para tal os mdulos desta mesma ferramenta para Programao em Lgica com Restries sobre domnios finitos.

## 1 Introduo

With this chapter, the preliminaries are over, and we begin the search for periodic solutions ...

### 1.1 Autonomous Systems

In this section we will consider the case when the Hamiltonian  $H(x)$  ...

**The General Case: Nontriviality.** We assume that  $H$  is  $(A_\infty, B_\infty)$ -subquadratic at infinity, for some constant ...

*Notes and Comments.* The first results on subharmonics were ...

**Proposition 1.** Assume  $H'(0) = 0$  and  $H(0) = 0$ . Set ...

*Proof (of proposition).* Condition (8) means that, for every  $\delta' > \delta$ , there is some  $\varepsilon > 0$  such that ... □

*Example 1 ((External forcing)).* Consider the system ...

**Corollary 1.** Assume  $H$  is  $C^2$  and  $(a_\infty, b_\infty)$ -subquadratic at infinity. Let ...

**Lemma 1.** Assume that  $H$  is  $C^2$  on  $\mathbb{R}^{2n} \setminus \{0\}$  and that  $H''(x)$  is ...

**Theorem 1 ((Ghoussoub-Preiss)).** Let  $X$  be a Banach Space and  $\Phi : X \rightarrow \mathbb{R}$  ...

**Definition 1.** We shall say that a  $C^1$  function  $\Phi : X \rightarrow \mathbb{R}$  satisfies ...