



**Mês de:           MARÇO 2012**

## **SEMINÁRIO DE TEORIA DOS MODELOS**

**Dia 28 de Março (quarta-feira), às 15h, na Sala A2-25**

Recent applications of o-minimal theories in number theory

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**Abstract:**

After stating a recent theorem describing the rational points of a set definable in an o-minimal structure over the real field  $\mathbb{R}$ , we prove an application of it on torsion points of abelian varieties; namely Manin-Mumford conjecture. The main obstacle is determining the "algebraic part" of an analytic set. Then we move on to the proof of the theorem on the rational points of definable sets. The fundamental part of that proof is a certain parametrization in o-minimal structures.

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