### CENTRO DE MATEMÁTICA E APLICAÇÕES FUNDAMENTAIS

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# Mês de: MARÇO 2014

## SEMINÁRIO DE LÓGICA MATEMÁTICA

### Dia 20 de Março (quinta-feira), às 15 horas, na Sala B3-01

Automating deduction in non-classical logics: Signed resolution for many-valued logics

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#### **Abstract:**

Automating deduction in non-classical logics is today a major objective, given their many fundamental and practical applications. This is particularly so with respect to many-valued logics, logical systems with truth-value sets with cardinality > 2.

Adapting well-known automated deduction calculi for classical logic has proved to be an efficient way to automate deduction in non-classical logics. In this talk, I show that the resolution calculus combined with the formalism known as signed logic, i.e., signed resolution, is an adequate calculus for automating deduction in (mostly finitely) many-valued logics.

There being the time and the inclination, possible ways to implement signed resolution in resolution-based ATP (automated theorem proving) software may be discussed.

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Local:

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