SEMINÁRIO DE LÓGICA MATEMÁTICA

Dia 20 de Outubro (sexta-feira), às 15:00, sala 6.2.33

Proof mining in convex optimization and nonlinear analysis

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Abstract:

The research program of proof mining in mathematical logic – first suggested by G. Kreisel in the 1950s as 'unwinding of proofs' and developed by U. Kohlenbach in the 1990s and afterwards – is a field of study that aims to analyze, using proof-theoretic tools, the proofs of existing mathematical theorems in order to obtain their hidden quantitative content. The new information is both of quantitative nature, such as algorithms and effective bounds, as well as of qualitative nature, such as uniformities in the bounds. In this talk we give an introduction to proof mining and present some recent applications in convex optimization and nonlinear analysis.

Local: FCUL, C6 - Piso 2, 6.2.33