

Math Colloquium CIDMA/UAlg

Theory of Computation and Dynamical Systems

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Abstract: In mathematics one is often interested in finding explicit solutions to a given class of problems. But what do we mean by an “explicit” solution, in a broad sense? An approach which is typically used in practice (even if implicitly) is to consider a solution to be “explicit” if it can be obtained by following some “recipe” consisting of finitely many steps – an algorithm.

But when is a problem solvable by an algorithm? Can we prove that there are problems which cannot be solved algorithmically? We will introduce this thematic and then use this perspective to analyse several problem from dynamical systems theory.

14/3/2025 – 14h30 -15h30 – C2 2.11