

II Joint Conference of the Belgian, Royal Spanish and Luxembourg Mathematical Societies
Logroño, June 6–8, 2016

Exterior discrete semi-flows and applications

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An exterior discrete semi-flow is a discrete semi-flow generated by an exterior continuous map. The aim of this talk is to explain the notion of exterior discrete semi-flow and to apply it to the analysis of iterative processes induced by numerical methods –in this way, we are connecting some novel working purely topological techniques to several notions regarding dynamical systems. In particular, we have developed new computer programs for visualizing basins of attraction associated with the end points of a discrete semi-flow induced by a rational function defined on S^2 and for computing the measure of these basins, up to a certain precision.

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