Programme du 50e : Méthodes computationnelles rigoureuses et topologiques
pour la dynamique en grande dimension
« Atelier sur la dynamique guidée par les données : topologie algébrique, combinatoire et analyse »
15 au 18 avril 2019

50th anniversary program : Topological and Rigorous Computational Methods
for High Dimensional Dynamics
"Workshop on Data Driven Dynamics: Algebraic Topology, Combinatorics and Analysis"
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The algebra of dynamical systems

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We discuss how the structure of a dynamical system can be studied via algebraic tools. For example the lattice structure of the sets of attractors provides the appropriate framework for describing Morse decompositions and chain-recurrence. The theory of Boolean algebras with operators allows equivalent descriptions of dynamics. For example derived structures such as naturally defined closure algebras reveal the attractor lattice of the system. In this talk an outline of these will be presented.

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