

## **Percolation on infinite random planar maps.**

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### **Resumo/Abstract:**

A planar map is a planar graph embedded in the plane, considered up to continuous deformations. These objects have been studied extensively in combinatorics, physics (as discrete random surfaces) and more recently probability theory. Much progress has been made in recent years in understanding the typical structure of these objects, and glimpses of a deeper theory are visible, particularly connecting the scaling limit of random planar maps with conformally invariant models of statistical physics. The uniform distribution on planar maps of a size  $n$  converges in a local topology as  $n \rightarrow \infty$  to a limit which is a natural distribution on infinite planar maps. I will survey some results and conjectures concerning these objects, and discuss some recent progress in understanding percolation on these random graphs.