

Speaker: Juna Rivera Letelier

Title: Ergodic theory of p -adic rational maps

Abstract: Topological entropy is one of the most important invariants of a topological dynamical system. It has been known since the late 1970s that the topological entropy of a rational map acting on the Riemann sphere is equal to the logarithm of its degree. However, this is not true for a p -adic rational map acting on Berkovich's projective line: the topological entropy could be zero and it is difficult to compute in general. We show a rigidity result for a p -adic rational map whose equidistribution measure does not charge the wildly ramified locus: if the topological entropy is not equal to the logarithm of its degree (as in the complex case), then the rational map possesses a smooth invariant metric. This is a work in progress with Charles FAVRE.