





Barcelona Analysis Seminar

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Every circle homeomorphism is the composition of two conformal weldings

Àlex Rodriguez Stony Brook University

Conformal welding homeomorphisms are circle homeomorphisms that arise naturally in Teichmuller theory, Mathematical physics and dynamics. It is well known that not every circle homeomorphism is a conformal welding. However, in this talk we will see that every orientation-preserving circle homeomorphisms is the composition of two conformal weldings, which implies that conformal weldings are not closed under composition. Our approach uses the log-singular maps introduced by Bishop. The main tool that we introduce are log-singular sets, which are zero capacity sets that admit a log-singular map that maps their complement to a zero capacity set.