On Hausdorff dimension of Julia sets via a computer-assisted proof

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Host: Kaloshin Group

Roughly speaking, Julia set of a holomorphic map is the set of points near which the iterations of this map behave chaotically. A natural question is how large this set can be. One of ways to measure the size of such set is using Hausdorff (and other types of) dimension. In this talk I will present two approaches for studying this quantity for certain classes of maps and will describe computer assisted results obtained using these approaches. The approaches are inspired by Avila-Lyubich’s and McMullen’s works. The results are from a joint paper with Scott Sutherland, and a joint paper with Igors Gorbovickis and Warwick Tucker.

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ISTA Campus Heinzel Seminar Room / Office Bldg West (I21.EG.101)