
OLEG IVRII, Harvard University
Ghosts of the Mapping Class Group

Recently, McMullen showed that the Weil-Petersson metric in Teichmüller theory arises as the double derivative of the Hausdorff dimension of certain families of quasi-circles arising from simultaneous uniformization. He noticed that a similar construction can be carried out on spaces of Blaschke products; and so by analogy one can define a Weil-Petersson metric there. But how does this metric look like? Is it incomplete? Invariant under the mapping class group?

While it appears that there is no genuine mapping class group acting on the space of Blaschke products, there are 'ghosts' acting on two very different boundaries that arise from non-tangential and horocyclic degenerations. In this talk, we will describe these boundaries and illuminate these ghosts.