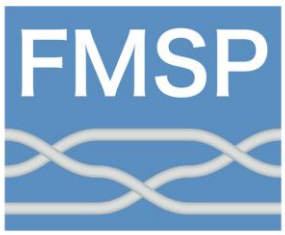

FMSP Lectures

Jørgen Ellegaard Andersen
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Geometric Recursion

March 23 (Friday) 10:00 ～ 12:00
March 26 (Monday) 10:00 ～ 12:00
Room 002

Abstract:
Geometric Recursion is a very general machinery for constructing mapping class group invariants objects associated to two dimensional surfaces. After presenting the general abstract definition we shall see how a number of constructions in low dimensional geometry and topology fits into this setting. These will include the Mirzakhani-McShane identies, mapping class group invariant closed forms on Teichmüller space (including the Weil-Petterson symplectic form) and the Goldman symplectic form on moduli spaces of flat connections for general compact simple Lie groups. We shall also discuss the process which establishes that any application of Topological Recursion can be lifted to a Geometric Recursion setting involving continuous functions on Teichmüller space, where the connection back to Topological Recursion is obtained by integration over the moduli space of curve. The work presented is joint with G. Borot and N. Orantin.