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NUMERICAL RECONSTRUCTION OF CURVES FROM THEIR JACOBIANS

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Abstract

We approach the Torelli problem of reconstructing a curve from its Jacobian from a computational point of view. Following the literature of algebro-geometric perspective to the Kadomtsev-Petviashvili equation, we design machinery to solve this problem effectively, which builds on methods in numerical algebraic geometry. We verify these methods via numerical experiments with curves up to genus 7. This is joint work with Daniele Agostini and Demir Eken.

Date : Friday, August 27, 2021

Time: 09:00

Place: IMBM Seminar Room, Bogazici University South Campus