BERNOULLIS TAFELRUNDE

GRADUATE STUDENT SEMINAR

Thursday, 17 September, 12:15-13:00
Seminarraum 00.003, Spiegelgasse 1

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On Bressan's Mixing Conjecture and Related Results

ABSTRACT

The first part of the talk consists of a general introduction to mixing and a broad overview over a number of related research fields. In the second part we will focus on one particular mixing conjecture, which was first stated in 2003 by Alberto Bressan concerning mixing flows. Intuitively speaking, flows that have a strong mixing property are very far from being constant. Bressan quantified this intuition by proposing a lower bound for the derivative of any flow (in some sense a "minimal cost") which achieves a certain quality of a mix. Although the validity of the conjecture is unknown to this day, in recent years a number of related results were proven, of which some also give us a very good idea of the sharpness of this conjecture.