

**VENTOTENE INTERNATIONAL WORKSHOPS III  
MODULI SPACES  
VENTOTENE, 11-16 SEPTEMBER 2017**

**BASMAJIAN-TYPE INEQUALITIES FOR MAXIMAL REPRESENTATIONS**

Federica Fanoni

MPI Bonn and Universität Heidelberg

Basmajian's celebrated identity gives a way to compute the length of the boundary of a hyperbolic surface in terms of the lengths of the so-called orthogeodesics (geodesics orthogonal to the boundary at both endpoints). This identity can be generalized to the context of maximal representations. This is a class of representations of the fundamental group of a surface that can be seen as a generalization of Teichmüller space. I will describe the classical identity, introduce maximal representations and discuss Basmajian's identity in this setup. Joint work with Beatrice Pozzetti.