

APRIL 1 - JULY 15

IMPAN, WARSAW

SIMONS SEMESTER ON

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# GEOMETRIC AND ANALYTIC GROUP THEORY

COLLOQUIUM

TUESDAY, 07.05.2019

16:15-17:30

ROOM 3180, MIMUW  
BANACHA 2  
02-097 WARSZAWA

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Coarse Extrinsic Geometry and surface-by-free groups

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Abstract: The notion of distortion of finitely generated subgroups  $H$  of finitely generated groups  $G$ , introduced by Gromov, is a first step towards studying extrinsic geometry of subgroups in the coarse setup. When the group and subgroup are hyperbolic, finer information can be obtained in the presence of a Cannon-Thurston map. We shall discuss applications towards proving quasiconvexity results. When the ambient group  $G$  is surface-by-free, hyperbolic, such quasiconvexity results are an ingredient leading to a cubulation result in certain situations.

This will be an expository talk drawing from joint work with several people including Rafi, Manning and Sageev.

