Oussama Bensaid : *Coarse embeddings and homological filling functions*

Introduced by Gromov in the 80's, coarse embeddings are a generalization of quasi-isometric embeddings when the control functions are not necessarily affine. We will be particularly interested in the obstructions to the existence of such embeddings between symmetric spaces of noncompact type, Euclidean buildings, CAT(0) spaces and mapping class groups. We show that, like in the quasi-isometric case, the rank (the maximal dimension of a flat/quasi-flat) is monotonous under coarse embeddings, provided that there is no Euclidean factor in the domain, or a Euclidean factor of dimension 1. The proof involves higher homological filling functions.

Jeudi 24 novembre, 9h30-10h30, Amphithéâtre Yoccoz.