Commensurating actions and CAT(0) cube complexes

I will give a little panorama of hyperbolic spaces and group actions thereon. Introduced by Gromov in the late 80's as a far-reaching generalization of negatively curved manifolds, they now play an essential role in geometric group theory. They have remarkable applications, even beyond finitely generated groups; notably the recent discovery, by Cantat and Lamy, that the "Cremona group" of birational self-transformations of the plane is not a simple group.

De Cornulier Yves (Universite Paris-Sud, France)