

## Local unmarked lens rigidity in negative curvature

**Speaker:** Colin Guillarmou, Université Paris Saclay and CNRS

**Abstract:** I will explain recent work with Cekic and Lefeuvre on the recovery of a Riemannian manifold  $(M, g)$  with convex boundary and with negative curvature from the pair  $(S_g, L_g)$  where  $S_g$  is the scattering map and  $L_g$  the travel time, assuming that  $g$  is close enough to a fixed metric  $g_0$ . The new feature is the fact that we do not assume that we know the marking of the geodesics (i.e. the homotopy class they belong to). This opens the question of a similar result in the closed case, conjectured by P. Sarnak.