My research interests.
A. Sambusetti

My main interests are in the asymptotic geometry and dynamics of Kleinian groups (i.e. fundamental groups of negatively curved manifolds). There is a lot of interplay between problems and methods of Riemannian geometry and geometric group theory.

More specifically, I am currently interested in :

- the geometry of geometrically finite Kleinian groups (e.g. quotients of finite volume): rigidity, relations between the entropy and the critical exponent, counting closed geodesics, the Margulis function etc., cp. [3,4]

- growth tightness, subgroups growth and cogrowth of Kleinian groups, cp. [2,4,5]

- the Gromov boundary and other geometrically significant asymptotic invariants of Kleinian groups and of the spaces they act on; for instance, open, non-simply connected normal coverings of compact negatively curved manifolds, cp. [1]

Some related works:

1. F. Dal'Bo, M. Peigné, A. Sambusetti - On the horoboundary and the geometry of rays of negatively curved manifolds, Pacific Journal of Mathematics 259-1, 55-100 (2012)

2. F. Dal'Bo, M. Peigné, J.C. Picaud, A. Sambusetti - On the growth of quotients of Kleinian groups, Ergodic Theory and Dynamical Systems 31 (3), 835-851 (2011)

3. F. Dal'Bo, M. Peigné, J.C. Picaud, A. Sambusetti - Growth of non-uniform lattices in pinched negatively curved manifolds, J. Reine Angew. Math. vol. 627, 31-52 (2009)

4. A. Sambusetti - Asymptotic properties of coverings in negative curvature, Geometry& Topology 12, no. 1, 617-637 (2008)

5. A. Sambusetti - Growth tightness of surface groups, Expositiones Mathematicae 20, 345-363 (2002)

6. A. Sambusetti - Growth tightness of free and amalgamated products, Ann.Sci. Ecole Norm.Sup. 4 série, t.35, 477-488 (2002)