1105-53-15 **Bianca Santoro*** (bsantoro@ccny.cuny.edu). *Bifurcation of periodic solutions to the singular Yamabe problem on spheres.*

In this talk, we describe how to obtain uncountably many periodic solutions to the singular Yamabe problem on a round sphere, that blow up along a great circle.

These are (complete) constant scalar curvature metrics on the complement of a circle inside S^m, $m \geq 5$, that are conformal to the round (incomplete) metric and periodic in the sense of being invariant under a discrete group of conformal transformations.

Furthermore, for $5 \leq m \leq 7$, the solutions come from bifurcating branches of constant scalar curvature metrics on the compact quotient.

This is joint work with R. Bettiol (Notre Dame) and P. Piccione (USP). (Received May 28, 2014)