DAVID MINDA, University of Cincinnati
Hyperbolic geometry and conformal invariants.

The goal is to use classical hyperbolic geometry to obtain results about the Euclidean size of the image of a set in a simply connected hyperbolic region under a conformal mapping onto the open unit disk. The idea is to use a conformal invariant to estimate the Euclidean size. In hyperbolic geometry a half-plane H subtends an angle 2t at a point z not in H. The angle decreases as the distance from z to H increases and the angle is a conformal invariant. The classical Angle of Parallelism formula is the main tool to estimate the Euclidean size. This is joint work with A.F. Beardon.