1. Sean Curry

**Title.** Strictly pseudoconvex domains in $\mathbb{C}^2$ with obstruction flat boundary.

**Abstract.** A bounded strictly pseudoconvex domain in $\mathbb{C}^n$, $n > 1$, supports a unique complete Kahler-Einstein metric determined by the Cheng-Yau solution of Fefferman’s Monge-Ampere equation. The smoothness of the solution of Fefferman’s equation up to the boundary is obstructed by a local curvature invariant of the boundary called the obstruction density. In the case $n = 2$ the obstruction density is especially important, in particular in describing the logarithmic singularity of the Bergman kernel. For domains in $\mathbb{C}^2$ diffeomorphic to the ball, we motivate and consider the problem of determining whether the global vanishing of this obstruction implies biholomorphic equivalence to the unit ball. (This is a strong form of the Ramadanov Conjecture.)