

Colloquium

HYUN-KYOUNG KWON
University at Albany SUNY

THE CORONA PROBLEM AND RELATED QUESTIONS

Friday, November 2, 2018
3:00 p.m. in ES-143
(tea & coffee at 2:30 p.m. in ES-152)

ABSTRACT. The corona problem has been posed by Kakutani in 1941 and was later proved by Carleson in 1962. While Carleson's original proof is quite elegant, the machinery involved is quite complicated. To solve various versions of the corona problem, people have been using the technique first introduced by Hormander and popularized by Wolff. It will be shown how this technique can be applied to solve other problems such as determining when two Cowen–Douglas operators are similar and getting a degree bound for the polynomials that show up as a result of Hilbert's Nullstellensatz. The talk is based on a series of papers with R.G. Douglas, K. Ji, A. Netyanun, J. Sarkar, S. Treil, and T.T. Trent.