Analysis Seminar

Title: Exact behaviour of positive solutions near isolated singularity in a logarithmic setting

Speaker: M. Ghergu

Date: Tue 28th November 2017 at 4:15PM

Location: SCN 125

Abstract: We study the exact behaviour around the isolated singularity at the origin for C^2-positive solutions of $-\Delta u = u^\alpha |\log u|^\beta$ in a punctured neighbourhood of the origin of R^n, $n \geq 3$. This talk discusses first the power case $\beta = 0$ then underlines the difficulties in dealing with logarithmic terms and presents further directions of investigation. This is based on a joint work with Henrik Shahgholian (KTH, Stockholm) and Sunghan Kim (National University of Seoul, Korea).