Speaker: Kacper Grzelakowski (University of Lodz)

Title: *Open problems regarding parameters in Artin-Ploski Theorem*

Abstract: We will discuss some open problems that emerge when analysing the Artin-Ploski Theorem regarding the approximate solutions of analytic equations. The famous Artin Approximation Theorem states that if there exists a formal solution to a set of analytic equations then the convergent solution exists as well; in fact the convergent solutions lie dense in the space of all the solutiond. The Ploski Theorem shows that there is a whole family of solutions depending on new parameters which - after specification - allow us to obtain the given formal solution. We will discuss the number of parameters as well as the number of different families of such parameters.