STUDENT WORKSHOP SZCZECIN 2019

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Title: *Valuation theoretical continuity of roots: an overview*

Abstract: Let K be a field and consider the polynomial ring $K[x]$. The general idea of *the continuity of roots* can be stated as follows:

> *If two polynomials are 'close' to each other, then so are their roots.*

To measure how close two polynomials are, we use the topology induced by a valuation v on K. Two polynomials are close if their respective coefficients are close in this topology. We will present a brief overview of the existing results on root continuity.