IVO HERZOG, The Ohio State University *Eklof's Lemma in Ideal Approximation Theory*

We will describe 1) the origin and motivation behind Ideal Approximation Theory; 2) its analogy with classical Approximation Theory in the study of complete ideal cotorsion pairs; 3) its context, the exact category of mono-epi extensions of arrows; and then 4) some recent results and applications related to the ideal version of Eklof's Lemma. The talk will be based on joint work with S. Estrada, X.H. Fu, and S. Odabasi.