"New Developments in Chiral Phosphate Based Methodology"

Abstract: Organocatalysis is considered by many to be an attractive, and potential “green” alternative to traditional metal-based catalysis. This research specifically seeks to develop new reaction methodologies that utilize chiral phosphoric acids as functional asymmetric organocatalysts for synthetically useful transformations. A second major direction is to utilize chiral phosphates as ligands for metal catalysis. In this presentation several new reaction methodologies that utilize chiral phosphoric acids or chiral phosphate metal complexes will be described and discussed. Our initial discoveries and our most recent developments that allow for the asymmetric allylation of aldehydes will be highlighted.

Host: Professor Daniel Seidel