Title:
Higher analytic stacks and GAGA theorems

Abstract:
I will survey a joint work with T.Y. Yu (preprint available at arXiv 1412.5166). In this article, we lay the foundations of higher analytic geometric stacks, where "analytic" means both complex-analytic and rigid-analytic. We subsequently introduce the fundamental notion of proper morphisms between such objects and prove a generalization of Grauert - Remmert finiteness theorem for proper higher direct images. As an application, we deduce GAGA theorems for higher stacks.