Centers of F-purity and their behavior under finite covers.

Javier Carvajal-Rojas (Leuven)

Let X be an F-split variety (roughly, a strong form of ordinary log Calabi—Yau variety) and Y/X be a finite cover such that the F-splitting of X lifts to Y. How do the spectra of centers of F-purity (roughly, arithmetically tame log-canonical centers) of Y and X relate to one another? This turns out to be a very tricky question due to wild ramification. An optimal answer would look like Cohen—Seidenberg-type theorems for spectra of centers of F-purity. In this talk, I will report on work in progress with A. Fayolle (U. of Utah) where we address this question.