

F-blowups of quotient singularities and toric singularities

Monday 18 December 2023 14:00 (50 minutes)

The F-blowup gives a canonical way to construct a birational transform of a singular variety in positive characteristic. There is also a non-commutative counterpart of this construction. There are several natural questions concerning the F-blowup. Does this blowup give resolution of singularities? If not, does it improve singularities? Is it close to be a resolution of singularities in a certain sense? In this talk, I would like to present some recent results for quotient singularities by finite group scheme actions and for toric singularities in this direction, which were obtained in my joint works with C. Liedtke, E. Chavez-Martinez and D. Duarte.

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