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*Log canonical and F-pure thresholds and ordinary reduction*

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**Abstract:** The F-pure threshold of a variety in characteristic  $p \neq 0$  is a rational number which measure of its singularities near the origin. It is intimately connected to birational invariants of complex varieties such as the log canonical threshold through reduction mod  $p$ . The agreement of these two invariants is also deeply connected to ordinary (in the sense of Bloch-Kato) reduction as can already been seen clearly in the case of elliptic curves. This talk introduces these thresholds and their connections and explores a special cases where agreement can be shown purely in using algebraic methods.

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MATHEMATICS AND COMPUTER SCIENCE  
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