

About local-global principles for homogeneous spaces with finite stabilizers

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Abstract:

A now classical result of Borovoi states that the Brauer-Manin obstruction to the Hasse Principle (resp. to weak approximation) is the only one for homogeneous spaces of linear algebraic groups with connected (or abelian) stabilizers. More recent results (due to Colliot-Thélène, Xu, Harari, Borovoi and the author) prove that the same is true concerning the Hasse Principle for integral points (resp. concerning strong approximation) on such spaces. A natural question (related with the inverse Galois problem) is to study similar statements for homogeneous spaces with stabilizers which are neither connected, nor abelian. We will explain two partial results in this direction.