

Unlikely ramification in residue fields of points on curves

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An accepted truism in arithmetic geometry is that curves of genus at least 2 have more complicated arithmetic than curves of genus 0 or 1. One way this is made precise is by Faltings's Theorem: any curve of genus at least 2 has only finitely many points over any number field. Another possibility for making this precise is to show that there are many number fields that cannot appear as the residue field of points on a fixed curve of genus at least 2. In this talk, we report on results in this direction, joint with Isabel Vogt.