

The 7th East Asia Number Theory Conference

A pro-p group-theoretic criterion for good reduction of ordinary proper hyperbolic curves

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Oda and Tamagawa gave a pro-l group-theoretic criterion for good reduction of hyperbolic curves which asserts that a hyperbolic curve has good reduction if and only if the associated pro-l outer Galois representation is unramified. Andreatta, Iovita, and Kim gave a p-adic criterion for good reduction of proper hyperbolic curves which asserts that a proper hyperbolic curve admitting semistable model has good reduction if and only if the associated p-adic unipotent fundamental group is crystalline. In this talk, we discuss a pro-p group-theoretic criterion for good reduction of ordinary proper hyperbolic curves.

