

1125-14-1334

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Let K be the field of fractions of a complete discrete valuation ring R . Let X/K be a smooth proper geometrically connected curve. Let L/K be an extension such that X_L/L has semi-stable reduction. We will discuss conjectures, and some partial results towards these conjectures, pertaining to the following two questions. Given a regular model of X/K , what is it possible to infer on the extension L/K and the minimal regular model of X_L/L ? Given the extension L/K and a regular model of X_L/L , what information can be obtained on the minimal regular model of X/K . Such questions are most difficult in the case where the extension L/K is wild. (Received September 16, 2016)