

# Semifactorial curves over discrete valuation rings

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A family of curves over a discrete valuation ring is called semi-factorial if every line bundle on the generic fibre extends to a line bundle on the total space. In the nodal case, we give a sufficient and necessary condition for semi-factoriality, in terms of combinatorics of the dual graph of the special fibre. In particular, we show that performing one blow-up centered at the non-regular closed points yields a semi-factorial model of the generic fibre. If time allows, I will show how to interpret these results in terms of Neron models of jacobians of nodal curves.