

On the Lamé operators with finite monodromy

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We describe the Lamé differential operators having a full set of algebraic solutions. In almost all cases, such an operator is a pullback of a hypergeometric operator via a rational function ramified at most over three points, a so-called Belyi function. The main tool of this study is the combinatorics of the Belyi functions. We readdress several properties proved by Baldassarri and Chiarellotto and we answer some questions asked by Dwork and Baldassarri. Some effective computations are also presented.