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Generic models of moduli problems of abelian varieties

To a moduli problem of abelian varieties (e.g. a tuple of abelian varieties with additional structures plus certain morphisms between them) one can associate a moduli problem in terms of linear algebra by looking at the deRham cohomology and its Hodge filtration. For moduli problems which arise from PEL-Shimura varieties and parahoric level structures, Rapoport and Zink have shown that the canonical morphism from the moduli space of abelian varieties into the corresponding linear algebra moduli space is smooth. For more general moduli problems one gets weaker properties for this morphism which at least give some generic information of the moduli space. We use this to prove the density of the μ -ordinary locus in the moduli space of p -isogenies for certain unitary groups which is the crucial ingredient in a proof of the congruence relation in this case.