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Good reduction criterion for K3 surfaces: an announcement. (Japanese. English summary)

[Zbl 1353.14047](#)

[RIMS Kôkyûroku Bessatsu B53, 95-102 \(2015\)](#).

Summary: This is an announcement of another paper by the author [[Math. Z. 279, No. 1–2, 241–266 \(2015; Zbl 1317.14089\)](#)]. We prove that whether a K3 surface has potential good reduction can be determined from the Galois representation defined from the l -adic or p -adic étale cohomology groups of the K3 surface. This is an analogue of the Neron-Ogg-Shafarevich criterion for Abelian varieties. We also have an application to the period map of K3 surfaces in mixed characteristics.

MSC:

- [14J28](#) *K3 surfaces and Enriques surfaces*
- [11G25](#) *Varieties over finite and local fields*
- [14G20](#) *Local ground fields in algebraic geometry*

Keywords:

[K3 surfaces](#); [good reduction](#); [Galois representations](#); [period maps](#)