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GOREN-OORT STRATIFICATION OF QUATERNIONIC SHIMURA VARIETIES AND ARITHMETIC APPLICATIONS

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Résumé : Let F be a totally real field, and p be a prime unramified in F. We consider a quaternion algebra D over F split at all primes above p, and a quaternionic Shimura variety X associated with F. In this talk, I will introduce the Goren-Oort stratification on the characteristic p fiber of X. The main result says that each closed Goren-Oort stratum is an iterated $\mathbb{P}^1$-bundle over another quaternionic Shimura varieties. If time allows, I will explain the application of this result to the generic case of Tate conjecture for Hilbert modular varieties in characteristic p. This is a joint work with Liang Xiao.