

## Shimura Varieties and Modularity (3/3)

*Wednesday, July 27, 2022 9:20 AM (1h 20m)*

We discuss vanishing theorems for the cohomology of Shimura varieties with torsion coefficients, under a genericity condition at an auxiliary prime. We describe two complementary approaches to these results, due to Caraiani-Scholze and Koshikawa, both of which rely on the geometry of the Hodge-Tate period morphism for the corresponding Shimura varieties. Finally, we explain how these vanishing results can be applied to local-global compatibility questions for the Galois representations constructed in the first lecture.

### Summary

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