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Killing ramification and a relative modularity lifting theorem.

This talk is about part of our proof with Thorne of the automorphy of symmetric powers of cuspidal Hecke eigenforms. The final phase in the proof is an induction on the number of supercuspidal primes for the eigenform. This is modelled on Khare and Wintenberger's proof of Serre's conjecture. I'll explain how we carry out this argument using a new modularity lifting theorem.