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Converse theorems and the local Langlands conjecture in families for $GSp(4)$

We will outline ongoing joint work-in-progress with Johannes Girsch regarding a generalization of the construction of Novodvorsky local gamma factors for generic representations of $GSp(4, F)$, where F is a nonarchimedean local field of residue characteristic p . More specifically, we generalize the construction to certain classes of representations where the coefficients are a commutative Noetherian ring in which p is invertible. The gamma factors give descent data for families of Whittaker models. We present a heuristic of how this can be applied in the framework of the local Langlands conjecture in families.