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Kam-Fai Tam* (geo.tam@utoronto.ca), Department of Mathematics, University of Toronto, Room 6290, 40 St. George Street, Toronto, Ontario M5S 2E4, Canada. *Admissible embedding of L-groups and essentially tame local Langlands correspondence.*

Let F be a non-Archimedean local field. Bushnell and Henniart described an explicit bijection between the essentially tame Langlands parameters, i.e. irreducible representations of the Weil group W_F of dimension n , and the essentially tame irreducible supercuspidal representations of $\mathrm{GL}_n(F)$. This is known as the essentially tame local Langlands correspondence. We can regard each Langlands parameter as a representation twisted-induced from a character ξ of a tamely ramified subgroup W_E of W_F of degree n . Here a twist refers to another character μ_ξ of E^\times called the rectifier of ξ . We prove that the rectifier admits a factorization such that the factors are parameterized by the isotypic components of a finite symplectic module arising from the construction of the corresponding supercuspidal representation from ξ . With such factorization, we can express our Langlands parameter in terms of an admissible embedding of L-groups constructed by Langlands and Shelstad. Therefore we give a different interpretation of the essentially tame local Langlands correspondence.

Preprints are available at [arXiv:1109.4529](https://arxiv.org/abs/1109.4529), [1111.4731](https://arxiv.org/abs/1111.4731) and [1111.4732](https://arxiv.org/abs/1111.4732). (Received November 28, 2011)