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James W Cogdell* (cogdell@math.ohio-state.edu), Department of Mathematics, Ohio State University, 231 W. 18th Ave., Columbus, OH 43210. *On stability of γ .*

The local γ factor $\gamma(s, \pi, R, \psi)$ occurs as the factor of proportionality in local functional equations. This is true both for integral representations and the Langlands-Shahidi method of analyzing L -functions. The stability of γ is the statement that $\gamma(s, \pi \otimes \chi, R, \psi)$ becomes “essentially” independent of π for sufficiently highly ramified characters χ . This stability has important applications. It plays a role in the proof of Langlands functoriality via the L -function method and in the preservation of the exterior square and symmetric square ε -factor for GL_n under the local Langlands correspondence. In this talk I hope to discuss what we know about the stability of γ , how it plays a role in the above applications, and how one proves such results. (Received August 26, 2016)