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Luis Alberto Lomeli* (llomeli@math.uiowa.edu), Department of Mathematics, The University of Iowa, 15 MacLean Hall, Iowa City, IA 52242. *On the Langlands-Shahidi method for the classical groups in non-zero characteristic and applications.* Preliminary report.

Let F be a non-archimedean local field of positive characteristic and let G be either a split classical group or a quasi-split unitary group. Fix a Borel subgroup of G and let $P = MN$ be a standard parabolic subgroup with Levi M . The Langlands-Shahidi method is developed over global function fields in order to understand L -functions and root numbers arising from generic representations of $M(F)$. It is then possible to obtain applications including an extension to characteristic p of Shahidi's proof of Langlands' conjecture on the normalization of intertwining operators as well as his result on complementary series. (Received July 28, 2009)