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Alessandro De Stefani, Thomas Polstra and Yongwei Yao*, Department of Mathematics and Statistics, Georgia State University, Atlanta, GA 30303. *Globalizing F-invariants*.

We define and study the global Hilbert-Kunz multiplicity and the global F-signature of prime characteristic rings which are not necessarily local. Our techniques are made meaningful by extending many known theorems about Hilbert-Kunz multiplicity and F-signature to the non-local case. This is joint work with Alessandro De Stefani and Thomas Polstra. (Received August 30, 2016)