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Sandi Xhumari* (sandi_xhumari@yahoo.co.uk). *Generalized Stickelberger's congruence for generalized Gauss sums.*

I start by recalling classical Gauss sums over finite fields and their corresponding Stickelberger's congruence in the p -adic setting. Next, I introduce an infinite family of uniformizers that can be used in place of the standard uniformizer in the classical Stickelberger's congruence. These uniformizers lead to a better congruence. I will then define some generalized Gauss sums and state their corresponding generalized Stickelberger's congruence. Lastly, I outline a proof of this generalized Stickelberger's congruence through the Artin-Hasse exponential series. (Received August 29, 2016)