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*Factoring formal power series over principal ideal domains.*

We provide an irreducibility test and factoring algorithm (with some qualifications) for formal power series in the unique factorization domain  $R[[X]]$ , where  $R$  is any principal ideal domain. Our main tool is a generalization of the  $p$ -adic Weierstrass preparation theorem to the context of complete filtered commutative rings. (Received February 10, 2014)