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**Kostyantyn Slutskyy\*** ([kslutsky@gmail.com](mailto:kslutsky@gmail.com)), Department of Mathematics, University of Illinois at Urbana-Champaign, 1409 W Green Street, Urbana, IL 61801. *Graev metrics on free products with amalgamation and HNN extensions.*

Starting with a metric space  $(X,d)$  one can construct a two-sided invariant metric, called the Graev metric, on the free group  $F(X)$  over this space. We give a construction of two-sided invariant metrics on free products (possibly with amalgamation) of groups with two-sided invariant metrics and, under certain conditions, on the HNN extensions. Our approach is similar to the Graev's construction. (Received June 18, 2011)