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**Anja I. S. Moldenhauer\*** (a.moldenhauer@gmx.net) and **Gerhard Rosenberger**. *Private Key Cryptosystem using Nielsen Transformations.*

We explain a private key cryptosystem which uses finitely generated free groups, Nielsen Transformations (which are a linear technique to study free groups and general infinite groups) and the negative answer to Hilbert's Tenth Problem. (Received March 20, 2017)