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Hans-Juergen Schneider* (hanssch@mathematik.uni-muenchen.de) and **István Heckenberger**. *The braided Hopf algebra structure of reflected Nichols algebras.*

This is joint work with István Heckenberger. The reflection operator is a basic construction in the theory of Nichols algebras of semisimple Yetter-Drinfeld modules over some Hopf algebra. We give a new and explicit description of the Hopf algebra structure of a reflected Nichols algebra based on an abstract isomorphism of braided monoidal categories. We obtain a new and direct proof of the bijection between right coideal subalgebras in a Nichols algebra and in the reflected Nichols algebra. This bijection is the main tool to prove the existence of a general PBW-decomposition of Nichols algebras extending Lusztig's PBW-basis of the plus part of quantum groups. (Received September 11, 2014)