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Christoph Fischbacher* (cfischb@uab.edu) and **Gunter Stolz**. *The Quantum XXZ spin model on general graphs.*

We consider the XXZ spin model on general graphs and show its equivalence to a direct sum of discrete many-particle Schrödinger operators of hard-core bosons with an attractive interaction that can be expressed with the help of symmetric graph products. We discuss the existence of a lowest separated energy band (the droplet band), where we focus on the XXZ model on the strip and on \mathbb{Z}^d , which are not exactly solvable with the Bethe ansatz. (Received September 25, 2017)