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A pairing function is a bijection $f : \mathbb{N} \times \mathbb{N} \to \mathbb{N}$. Its inverse is called an *unpairing function*. We show that boolean logic on bitvector variables can be expressed as compositions of pairing/unpairing operations which can emulate boolean evaluation of ordered binary decision trees (OBDTs) of a canonical form.

The paper is organized as a literate Haskell program (code available at http://logic.csci.unt.edu/tarau/research/2011/mOBDT.hs).