

# Harmonic Spinors on the Davis Hyperbolic 4-manifold

John Ratchliffe  
*Vanderbilt University*

**Abstract.** Harmonic spinors are solutions of the Dirac operator. We use the G-spin theorem to show that the Davis hyperbolic 4-manifold admits non-zero harmonic spinors. This the first example of a closed hyperbolic  $n$ -manifold with  $n > 2$  that admits non-zero harmonic spinors.