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Jon McCammond* (jon.mccammond@math.ucsb.edu), Department of Mathematics, UC Santa Barbara, Santa Barbara, CA 93106. *Hyperbolic Coxeter groups and their finite simple cousins*. Preliminary report.

This talk will be a survey of the wide variety of Coxeter groups whose standard bilinear form (i.e. the one used in the Tits' representation) has only a single negative eigenvalue. Since all of these groups act faithfully on hyperbolic space, it makes sense to call them "hyperbolic Coxeter groups" despite the fact that this action is typically neither cocompact nor cofinite volume. One of the main things that I wish to highlight is the various ways in which these hyperbolic Coxeter groups are related to the finite sporadic simple groups. (Received July 29, 2010)