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Robert Meyerhoff*, Dept. of Math., Boston College, Chestnut Hill, MA 02467. *In Search of the First Infinite Hyperbolic Volume Stem*. Preliminary report.

The figure-eight knot complement and its sibling are the one-cusped hyperbolic 3-manifolds of minimum volume, and this volume is the limit (from below) of a sequence of volumes of closed hyperbolic 3-manifolds. It would be thrilling to identify every one of the hyperbolic 3-manifolds with volumes in this sequence. However, it seems as if we are rather far away from solving this problem. But the following similar problem might be considerably more tractable: Identify the entire collection of one-cusped hyperbolic 3-manifolds whose volumes form the sequence of (one-cusped) volumes approaching the 2-cusped minimum volume.

In this talk we discuss some approaches to this problem.

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