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**Christopher M Davis** and **David G Taylor\*** (taylor@roanoke.edu), Department of Mathematics, CS, and Physics, 221 College Lane, Salem, VA 24153. *The Harmonic Series and Biconvergence: One step forward, two steps back.*

Recent interest in the harmonic series has spawned double-, triple-, and multi-harmonic series, in addition to variants of  $q$ -series. Drawing upon the harmonic series and its counterpart, the alternating harmonic series, we have forged a wonderful series using the positive real line as a basis for adding and subtracting elements of the harmonic series. The number of terms used in each step is given by powers of a fixed base  $x \geq 1$ . In this talk, we construct a formal illustration of the biconvergence of these series, define what it means to sum a non-integer number of parts, and prove some very interesting results regarding our series. (Received September 03, 2009)