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Paul Barry* (pbarry@wit.ie), School of Science, Waterford Institute of Technology, Cork Road, Waterford, Waterford 000000, Ireland. *Riordan arrays and Catalan numbers as a source of Somos sequences*. Preliminary report.

The link between elliptic curves, Hankel determinants and Somos 4 sequences is well understood. Another approach to Somos 4 sequences, which also employs Hankel determinants, is to use Riordan arrays to find combinatorially significant sequences whose Hankel transforms are Somos 4 sequences. We relate this Riordan array approach to recent research on Somos sequences. The Catalan numbers play a central role in this approach. Links with continued fractions are also explored. (Received January 21, 2015)