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Rong Luo* (rluo@mail.wvu.edu), Morgantown, WV 26505. *Modulo orientations and integer flows of signed graphs*. Preliminary report.

A (signed) graph is modulo- $(2p+1)$ -orientable if it has an orientation such that indegree is congruent to outdegree modulo $2p+1$ at each vertex. We will talk about the relations among modulo orientations, integer-valued and real-values circular flows, and integer flows and study the monotonicity of modulo orientations and circular flows. This is joint work with Miaomiao Han, Jiaao Li, Yongtang Shi and C.-Q. Zhang. (Received January 11, 2020)