Elizabeth L. Wilmer*, elizabeth.wilmer@oberlin.edu, OH. Truly random cables.

Traditional cabled knitting can be very complex. Some recent knitting patterns use simple randomization to produce richly textured cabled fabric without memorization or charts. Most randomized cable patterns recommend occasional “cheating” to avoid aesthetic or functional problems. We analyze several models for random cables, ranging from coin flips through Markov chains on weighted tilings, and highlight the tradeoffs between mathematical aesthetics, physical aesthetics, and demands on the knitter. (Received September 16, 2013)