1163-18-1331 Colleen Delaney* (crdelane@iu.edu), Sung Kim and Julia Plavnik. Zesting link invariants goes beyond modular data.

Following the discovery of modular categories not determined by their modular data there have been several invariants proposed as alternatives, like the Whitehead matrix, Borromean tensor, traces of higher genus mapping class group representations, and many others. This proliferation of invariants which go beyond modular data suggests there may be nothing special about any particular invariant and begs the question of how knot theory can be best applied for classifying modular categories. By realizing Mignard and Schauenburg's modular isotopes as examples of the ribbon zesting construction, we are able to explain the phenomenology of link invariants that go beyond modular data and identify specific knots and links which are powerful for studying modular categories related by zesting. (Received September 15, 2020)