1073-30-82   **Rob Kusner*** (`kusner@math.umass.edu`), G.A.N.G. & Mathematics, University of
                  Massachusetts, Amherst, MA 01003. *Knots and Links as Conformal Bands.* Preliminary report.

Knots and links can be realized as collections of annular bands immersed in the plane arising from limits of embedded bands in three-space. One hope for this band model was to estimate the ropelength of knots and links in terms of a more easily computed analogue called bandlength; another hope was to provide a simpler setting to study constrained criticality. While progress has been made verifying earlier results and conjectures about bandlength, recent attention has turned to a conformally-invariant version defined via the extremal length (or, reciprocally, the conformal modulus) of conformally immersed annular bands in $\mathbf{C} \cup \infty = \mathbf{CP^1} = \mathbf{S^2}$. This talk will discuss some of the subtleties involved in defining, computing and optimizing conformal bandlength. (Received July 27, 2011)