1014-54-301 Anthony W. Hager* (ahager@wesleyan.edu), Department of Math. and C.S., Wesleyan University, Middletown, CT 06459, and Richard N. Ball. Network character and tightness of the compact-open topology.

We show that the cardinals tC(X), ncC(X), rtX stand in increasing order, and compare these cardinals with some of the many others involved in the association of C(X) to X. A corollary is that, for Cech-complete X, tC(X) is the Lindelof number of X. Here: X is a Tychonoff space, and C(X) carries the compact-open topology. tC(X) is the familiar tightness. ncC(X) is the network character, i.e., the minimum size of a local network at 0. For k an infinite cardinal, a k-cozero-set is the union of no more than k cozero-sets, and k-defX is the minimum number of k-cozero-sets of the Cech-Stone compactification which intersect to X (generalizing Mrowka's R-defect). Finally, rtX is the minimum over k of all numbers k-defX. (Received September 07, 2005)