

1124-54-90

Alan S. Dow* (adow@uncc.edu), Department of Mathematics and Statistics, University of North Carolina at Charlotte, 9201 University City Blvd, Charlotte, NC 28223-001. *Countably tight spaces are C-closed under PFA*. Preliminary report.

A space has countable tightness providing a set is closed if it contains the closure of all its countable subsets. A space is said to be C-closed if every countably compact subset is closed. Sequential spaces are C-closed. The one-point compactification of the classical Ostaszewski space is an example (requiring special axioms) of a space of countable tightness that is not C-closed (the Ostaszewski subspace is dense and countably compact). The standard proof from PFA that compact spaces of countable tightness are sequential proceeds by showing that they are C-closed. PFA is the proper forcing axiom. We prove the statement of the title. It was already known to be consistent with CH that countably tight spaces are C-closed and consistent with not CH that compact C-closed spaces do not have to be sequential. (Received August 30, 2016)