► NATHAN CARLSON, *Cardinal inequalities using o-free sequences.*
Department of Mathematics, California Lutheran University, 60 W. Olsen Rd, Thousand Oaks, CA 91360, USA.
E-mail: ncarlson@callutheran.edu.

We introduce the notion of an o-free sequence, related to a free sequence, and show several cardinal inequalities. Modifying recent work of Angela Bella, we show that if X is a compact Hausdorff space then $w(X) \leq hL(X)^{ot(X)}$. (The o-tightness $ot(X)$, introduced by Tkachenko, has the properties $ot(X) \leq t(X)$ and $ot(X) \leq c(X)$). A cardinality bound for compact Hausdorff spaces follows which is shown to be a strict improvement of Arhangel'skii's well-known bound $2^{\psi(X)}$. We also give a characterization of the o-tightness in compact Hausdorff spaces using weak o-free sequences. This work has appeared in [1]

[1] N. Carlson, *On o-free sequences and compacta*, ***Topology and its Applications***, vol. 377 (2026), 109631.