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Ulysses A Alvarez\* (alvarezs@math.binghamton.edu), 85 Grand Blvd, Binghamton, NY 13905, Binghamton, NY 13905, and Ross Geoghegan. The Up Topology for Mirror Topological Posets.

For a discrete poset  $\mathcal{X}$ , McCord proved that there exists a weak homotopy equivalence from the order complex  $|\mathcal{X}|$  to  $\mathcal{X}$ where  $\mathcal{X}$  has the Up topology. Much later, Živaljević defined the notion of the order complex of a topological poset. For a large class of such topological posets we prove the analog of McCord's theorem, namely that there exists a weak homotopy equivalence from the order complex to the topological poset with the Up topology. An interesting example of a topological poset of said class is the truncated Grassmann poset  $\widetilde{\mathcal{G}}_{n+1}(\mathbb{R})$ , that is, the collection of nonzero proper linear subspaces of  $\mathbb{R}^n$ , whose order complex is understood to be homotopy equivalent to the *m*-sphere for some *m*. In particular, there is a weak homotopy equivalence from the *m*-sphere to  $\widetilde{\mathcal{G}}_{n+1}(\mathbb{R})$  with the Up topology. (Received September 13, 2020)