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Extension of multisequences and countably uniradial classes of topologies

Abstract: It is proved that every non trivial continuous map between the sets of extremal elements of monotone sequential cascades can be continuously extended to some subcascades. This implies a result of Franklin and Rajagopalan that an Arens space cannot be continuously non trivially mapped to an Arens space of higher rank. As an application, it is proved that if for a filter $\mathcal{H}$ on ω, the class of $\mathcal{H}$-radial topologies contains each sequential topology, then it includes the class of subsequential topologies.

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