## Bernhard Banaschewski, Sung Sa Hong Completeness properties of function rings in pointfree topology

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Abstract: This note establishes that the familiar internal characterizations of the Tychonoff spaces whose rings of continuous real-valued functions are complete, or  $\sigma$ -complete, as lattice ordered rings already hold in the larger setting of pointfree topology. In addition, we prove the corresponding results for rings of integer-valued functions.

**Keywords:** frame of reals, lattice ordered rings of real valued continuous functions and integer valued continuous functions, extremally disconnected frame, basically disconnected frame, cozero map

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