Christopher Gilmour

University of Cape Town, South Africa

Aspects of realcompactness in pointfree topology

The property of realcompactness, and its various characterisations in (topological) spaces, has proved to be instructive when rendered in the setting of frames. Most particularly the defining rôle of the cozero sets of a completely regular space lead one to question the implication for cozero bases of frames L, and, in their own right, their description as the completely regular sub σ-frames generating L. However, as we know, the completely regular σ-frames are, themselves, precisely realcompact objects; that is, in at least one familiar way of characterising such. In order to circumvent this the Alexandroff frames, which pair frame and cozero base, where introduced. In this talk we look at properties, which are related to realcompactness for Alexandroff frames, that arise naturally in this situation.