

Frames of continuous functions

When considering frames, one often thinks of them as being an order theoretic way to represent spaces. For any topological space, the set of open sets is indeed a frame, and if the space is sober, one can even recover the original space through its spectrum. But there are many other frames coming from topological spaces, as for example the set L of lower semicontinuous functions from a space X to $[0, \infty]$ is also a frame. However, the classical spectrum of this frame is $X \times]0, \infty]$, whereas we want to recover X from L . In this talk, we investigate a way of “modding out” this factor.