Countable meets of opens in coherent spaces

Michael Barr *

Abstract.

We have shown that if $\{U_i\}$ is a countable family of open sets in a coherent space X, then the set $\bigcap U_i$ coincides in the lattice of sublocales of X with their inf $\bigwedge U_i$. I will define coherent space, explain the difference between subspaces and sublocales and, as time permits, give a sketch of the argument.

^{*}Joint work with John Kennison and Robert Raphael