

Large scale - small scale duality

Jerzy Dydak

University of Tennessee

In the small scale (the uniform category) one has the concept of the Samuel compactification. It corresponds to the Cech-Stone compactification in the sense that exactly uniformly continuous functions on X extend over the Samuel compactification $s(X)$ of X . In the large scale (the coarse category) one has the concept of the Higson compactification $h(X)$. It corresponds to the Cech-Stone compactification in the sense that exactly continuous and slowly-oscillating functions on X extend over the Higson compactification $h(X)$ of X . I will discuss the duality between the two compactifications for locally compact Hausdorff spaces.