
KENZY ABDEL MALEK, Concordia University
Computable Metric Spaces

We review analysis analogues to notions from computability theory found in the literature, namely the definition of a computable metric space. An example of such a space is $C[0, 1]$ with the sup metric and an appropriate dense, computable set of functions. Moreover, since the real Hardy space $H^p(\mathbb{R})$ is also a metric space for $0 < p \leq 1$, the goal is to ultimately define a computability structure on $H^p(\mathbb{R})$ using atomic decomposition