A COMPLETE PICTURE OF THE WADGE HIERARCHY IN 0-DIMENSIONAL POLISH SPACE.

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On a Polish space Z a subset A Wadge reduces to a subset B if there exists a continuous $f : Z \to Z$ such that $f^{-1}(B) = A$. On 0-dimensional Polish spaces Wadge reduction yields a well-founded quasi-order, very studied by results of Wadge, Martin, Monk, Andretta, Louveau, Duparc, Carroy, Medini, Müller, Motto Ros, and others. On Cantor space and Baire space the Wadge hierarchy has a different behavior on particular pointed class, so called countable degree. Indeed, countable degree on Cantor space are non selfdual classes, while on Baire space they are selfdual classes. This phenomenon arise a question: what happens in general 0-dimensional Polish spaces? We will answer this question with the notion of compactness degree for a 0-dimensional Polish space and see that infinitely different many cases can be realized on 0-dimensional Polish spaces.