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K J Mourad* (kjm57@georgetown.edu), kjm57@georgetown.edu. *Finite Set Theories and Hilbert's Finitism.*

In the context of set theory, Hilbert's Finitism can be interpreted using set theories for which there are no infinite sets. Even there one can take the Godel Bernays approach and allow proper classes which may be infinite although the sets themselves remain finite. We consider such approaches and survey some recent results in this area.

An interesting phenomena occurs when we attempt to compare such theories to finitistic theories in other settings such as first and second order arithmetic. In order to make a fair comparison we must appeal to certain notions of interpretation. Such considerations bring up interesting questions on the nature of finitism itself as well as certain philosophical issues related to domains of quantification. (Received February 01, 2012)