

Middle East Technical University  
Institute of Applied Mathematics

# SEMINAR SERIES

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## Self-dual MRD codes

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In classical coding theory self-dual codes play a particular role since they provide interesting connections to other areas in mathematics like lattices, group theory, topology. In the talk we discuss self-duality for rank metric, in particular MRD codes. We prove that the class of Gabidulin codes in  $(k)_n$  contains a self-dual code if and only if  $n \equiv 2 \pmod{4}$  and  $|k| \equiv 3 \pmod{4}$ . So far we do not know any other (up to equivalence) self-dual MRD code in  $(k)_n$ .