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Hamid Kulosman* (h0kulo01@louisville.edu), Department of Mathematics, University of Louisville, Louisville, KY 40292. *Coding theory over finite principal ideal rings.*

We will talk about applications of the notions like modules over products of rings, principal ideal rings and others in Coding Theory. For example, we will characterize the existence of self-dual codes of all lengths over finite commutative principal ideal rings in terms of indices of stability of their maximal ideals and also characterize when those codes are free. This is a joint work with Steven Dougherty and Jon-Lark Kim. (Received August 05, 2007)