

# Linear Codes Over Static Modules and Monomial Transformations

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## ABSTRACT

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The extension property as introduced by MacWilliams (1962) on linear codes over fields plays a central role in coding theory. With time, this property was generalized from fields to rings and modules by several authors. In particular, recently, this extension theorem is extended to Frobenius modules. During all these developments, the monomial transformation plays a crucial rule. The aim of this work is to construct codes over static and adstatic modules. Let us term them static codes and adstatic codes, respectively. As applications, we study the extension property and prove that the static and adstatic codes adhere to the monomial transformations. It is concluded that this property is categorical and is Morita invariant.

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