VECTOR REPRESENTATIONS OF INVOLUTIVE DIVISIONS AND SOME NEW INVOLUTIVE DIVISIONS

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This talk contains two parts. First, a vector representation of the general involutive division proposed by Gerdt and Blinkov was given. Using this representation, most of the properties of involutive divisions such as Noetherity, Artinity and Constructivity, can be simplified. Second, Thomas and Janet divisions were generalized to two types of involutive divisions, and new involutive divisions were found. Also the involutive completion algorithm on monomials given by Gerdt et al was improved.