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Title: Invariants in separated variables: Yang-Baxter and entwining maps

Abstract: We present the explicit form of a family of Liouville integrable maps in 3 variables, the so-called *triad family of maps* and we propose a multi-field generalisation of the later. We show that by imposing separability of variables to the invariants of this family of maps, the H_I, H_{II} and H^A_{III} Yang-Baxter maps in general position of singularities emerge. Two different methods to obtain entwining Yang-Baxter maps are also presented. The outcomes of the first method are entwining maps associated with the H_I, H_{II} and H^A_{III} Yang-Baxter maps, whereas by the second method we obtain non-periodic entwining maps associated with the whole F and $H-$list of quadrirational Yang-Baxter maps.