The Kramer-Mesner Method with Tactical Decompositions

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A widely used method to construct designs with prescribed groups of automorphisms is based on A_{tk} -matrices. It was suggested by E. Kramer and D. Mesner in 1976 and has been used ever since to find many new t-designs with large t. An alternative method, based on tactical decompositions, is more often used for 2-designs with small groups. In this talk we will compare the two methods and show how they can be combined. Some small examples will be shown, illustrating the Kramer-Mesner method with tactical decompositions.

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