Abstract 3-Rigidity and Bivariate Splines

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We verify a conjecture made by Walter Whiteley in 1996 that the generic \$C_1^2\$-cofactor matroid is the uniqe maximal abstract 3-rigidity matroid and use this to obtain a good characterisation of the rank function of this matroid. This is joint work with Katie Clinch and Shin-Ichi Tanigawa.