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**ROBERT DAWSON**, Saint Mary's University

*Collision-Free Linkages*

Linkages have been studied by both mathematicians and engineers for many years. In the late 19th century Kempe showed that any algebraic curve could be traced (at least in part) by an appropriately-designed linkage. However, (perhaps because there are other reasons why the tracing will in general be only partial) he was not concerned about the fact that the links may intersect each other. Abel *et al* have shown that the linkage may be made planar, but at the cost of a very indirect modeling with enormous numbers of links. This talk – joint work with Pietro Milici (Brest) – gives a simple construction that closely emulates a Kempe-style “ideal” linkage using rigid nonintersecting links. In particular, I shall try to make clear what this means!