

The Missing Mechanical Circuit Element

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Abstract

In 2008, two articles in *Autosport* revealed details of a new mechanical suspension component with the name “J-damper” which had entered Formula One Racing and which was delivering significant performance gains in handling and grip. From its first mention in the 2007 Formula One “spy scandal” there was much speculation about what the J-damper actually was. The Autosport articles revealed that the J-damper was in fact an “inserter” and that its origin lay in academic work on mechanical and electrical circuits at Cambridge University. This article aims to provide an overview of the background and origin of the inserter, its application, and its intimate connection with the classical theory of network synthesis.