

Abstract Submitted
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A simple experimental realization of the Sakaguchi-Kuramoto model DAVID MERTENS, ZHUWEI ZENG, LARS ENGLISH, Dickinson College — We explore the collective phase dynamics of Wien-bridge oscillators coupled resistively. The dynamics of these oscillators were recently shown to follow Sakaguchi's modification to the Kuramoto model. In this talk we outline the steps of that analysis. We then examine results for a variety of experimentally obtained coupling arrangements, including all-to-all and some-to-all. In particular, we provide evidence for the emergence of synchronized clusters, a finite-size effect that is not accounted for in the traditional theories for the Sakaguchi-Kuramoto model.

David Mertens
Dickinson College

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