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Calahan, Rebecca C. [Calahan, Rebecca S.];

Gardner, Robert B. [Gardner, Robert Bentley] (1-ETNS-SS);

Tran, Quan D. (1-FL-S)

Tricyclic Steiner triple systems. (English summary)

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Summary: “A Steiner triple system of order v , denoted $\text{STS}(v)$, is said to be tricyclic if it admits an automorphism whose disjoint cyclic decomposition consists of three cycles. In this paper we give necessary and sufficient conditions for the existence of a tricyclic $\text{STS}(v)$ for several cases. We also pose conjectures concerning their existence in two remaining cases.”
Magdi H. Armanious

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