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**Structured coprime factor model reduction based on LMIs.** (English) Zbl 1067.93010

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The authors of the paper under review study model reduction methods that preserve a certain structure of the linear dynamical system. They present two approaches that are based on expansive and contracting factorizations. Finally, the authors give an example that illustrates the technique developed in the paper.

Reviewer: **Vladimir V. Peller (East Lansing)**

**MSC:**

**93B11** System structure simplification

**15A39** Linear inequalities of matrices

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**Keywords:**

model reduction; coprime factor; Lyapunov inequalities; expansive and contracting factorizations

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