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Title: On the sumset of binary recurrence sequences

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For a subset  $\mathcal{A}$  of  $\mathbb{Z}$  we define the restricted sumset of  $\mathcal{A}$  by

$$\mathcal{A}\widehat{+}\mathcal{A} := \{a+b : a \in \mathcal{A}, b \in \mathcal{A}, a \neq b\}.$$

Answering a question of I. Z. RUZSA, A. BÉRCZES gave a complete description of the restricted sumset of geometric progressions having positive real quotient. In this connection, it is natural to ask whether it is possible to give a similar description of the restricted sumset of binary recurrence sequences? The present paper answers the question for Lucas sequences.

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