Some Diophantine problems connected to binary recurrences

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Binary recurrence sequences are in the focus of research for a long time. In the frame of Diophantine number theory researchers were investigating divisibility properties of members of recurrence sequences and many more Diophantine properties of them. However, there are several Diophantine problems and Diophantine equations which are not directly connected to recurrences, but linear recurrences (and theorems proved about them) appear as tools in the solution of these problems.

In my talk I will present some results on Diophantine equations and problems containing linear recurrence sequences, and also some diophantine results, where the linear recurrences appear only in the proof of the results.