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Title: Padovan squares which are again Padovan

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The integer sequence defined by $P_{n+3} = P_{n+1} + P_n$ with initial values $P_0 = P_1 = P_2 = 1$ is known as the Padovan sequence $(P_n)_{n\in\mathbb{Z}}$. In this note, we solve the Diophantine equations $P_{-n} = \pm P_m^2$, $P_n = P_{-m}^2$, and $P_{-n} = \pm P_{-m}^2$ in positive integers n, m.

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