

Odd Perfect Numbers: A Computational Sandbox

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In the late 1800's, James Sylvester quipped, “ ... a prolonged meditation on the subject (of odd perfect numbers) has satisfied me that the existence of any one such — its escape, so to say, from the complex web of conditions which hem it in on all sides — would be little short of a miracle. Thus then there seems to be every reason to believe that Euclid's perfect numbers are the only perfect numbers which exist!” Despite this belief, he and many others continued the search. Although several algorithmic approaches to finding odd perfect numbers (OPNs) have been attempted, we presents novel open-access computational sandbox to search for odd perfect numbers for the purpose of making observations that could lead to new ways to search for OPNs and their properties. We give several interesting observations and look at theoretical and applied constraints.

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