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Honoring 50th anniversary of Behzad's Conjecture

On Conjecture-Making in Graph Theory: Behzad vs. Graffiti

Manouchehr Zaker

The mechanization of mathematics in a broad sense refers to the use of computers to find mathematical proofs, make conjectures and form creative mathematical concepts. The resulting mathematics is known as automated mathematics and the program capable of accomplishing these meta-tasks is named automated mathematician. After a brief review, we take into account these issues restricted to the area of graph theory and tackle the possibility of automated graph theorist (AGT). We discuss the strengths and weaknesses of AGT in contrast to human-made graph theory in terms of a hypothetical dispute between Graffiti from the AGT camp and Professor Behzad from the second camp. We argue against AGT thesis using a memory theoretic approach and the thinking processes involved while doing graph theory.