

Recent results on Diophantine quintuples

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A set of m positive integers with the property that the product of any two of them increased by 1 is a perfect square is called a Diophantine m -tuple. There is a folklore conjecture that there does not exist a Diophantine quintuple. There is an even stronger version of this conjecture, that every Diophantine triple can be extended to a quadruple with a larger element in a unique way. The important result towards proving the conjecture was achieved by Dujella in 2004. He proved that there does not exist a Diophantine sextuple and that there are only finitely many quintuples. Those results have recently been improved by several authors and in this talk we will present the most recent among them.