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DiMaS

Seminář diskrétní matematiky

Katedra aplikované matematiky & JČMF

Decompositions of complete bipartite graphs into prisms revisited

aneb

Odvolávám, co jsem odvolal a nařizuji, co jsem nařídil

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A *generalized prism*, or more specifically an $(0, j)$ -prism of order $2n$ (where n is even) is a cubic graph consisting of two cycles u_0, u_1, \dots, u_{n-1} and v_0, v_1, \dots, v_{n-1} joined by two sets of spokes, namely $u_1v_1, u_3v_3, \dots, u_{n-1}v_{n-1}$ and $u_0v_j, u_2v_{j+2}, \dots, u_{n-2}v_{j-2}$.

The question of factorization of complete bipartite graphs into $(0, j)$ -prisms was completely settled by the author and S. Cichacz. Some partial results on decompositions of complete bipartite graphs have also been obtained by S. Cichacz, DF, and P. Kovar, and on decompositions of complete graphs S. Cichacz, S. Dib, and DF. The problem of decomposition of complete graphs into prisms of order 12 and 16 was completely solved by S. Cichacz, DF and M. Meszka.

In June 2014 I presented what I had believed was a complete solution for the decomposition of complete bipartite graphs into $(0, 0)$ -prisms (that is, the usual prisms).

In the same talk I mentioned my presentation in March 2014 in Boca Raton, Florida, where I had to admit that the results I had promised in my abstract were not covering any new cases, but rather just re-proved previously known results.

This time, I will retract what I have retracted, and order what I have ordered.