Guangzhou Discrete Mathematics Seminar



Some problems on cycle-distributed graphs

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26 April 2021 (Monday), 2:30pm to 3:30pm Room 416, School of Mathematics, Sun Yat-sen University Tencent meeting ID: 184 018 751

Let f(n) be the maximum number of edges in a graph on n vertices in which no two cycles have the same length. P. Erdős raised the problem of determining f(n) (see J.A. Bondy and U.S.R. Murty, Graph Theory with Applications (Macmillan, New York, 1976), p.247, Problem 11). In 1973, R.C. Entringer raised the problem of determining which simple graphs G have exactly one cycle of each length from 3 to n (see J.A. Bondy and U.S.R. Murty, Graph Theory with Applications (Macmillan, New York, 1976), p.247, Problem 10). We present the problems, conjectures related to these problems and we summarize the known results.

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