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*The Generalized Honeymoon Oberwolfach Problem with variable small cycle lengths*

The Honeymoon Oberwolfach Problem (HOP), introduced by Šajna, is one of the most recent variants of the classic Oberwolfach Problem. This problem asks whether it is possible to seat $2m_1 + 2m_2 + \ldots + 2m_t = 2n$ participants consisting of $n$ newlywed couples at $t$ round tables of sizes $2m_1, 2m_2, \ldots, 2m_t$ for $2n - 2$ successive nights so that each participant sits next to their spouse every time and next to each other participant exactly once. HOP has been studied by Jerade, Lepine and Šajna, and some significant cases of it have been solved.

We generalize HOP by allowing tables of size two, instead of a minimum size of four as previously defined in HOP. Thus, in the generalized HOP, we are aiming to seat the $2n$ participants at $s$ tables of size 2 and $t$ round tables of sizes $2m_1, 2m_2, \ldots, 2m_t$ with the assumption that $2n = 2s + 2m_1 + 2m_2 + \ldots + 2m_t$. In this talk, we will present a general approach to this problem, and we will show that the generalized HOP has a solution whenever $m_1 + m_2 + \ldots + m_t \leq 10$, that is, the sum of the table sizes other than size 2 is at most 20.