
NINO BAŠIĆ, University of Primorska, Slovenia
Pentagonal Clusters in Fullerenes

IPR-fullerenes form an important and well-studied family of fullerenes. In 2017, the Pentagonal Incidence Partition (PIP) was introduced which generalises this concept. All possible partitions of the number 12 were characterised, for which a fullerene with a prescribed PIP exists. In this sense, IPR-fullerenes can be described as fullerenes F with $\text{PIP}(F) = (1, 1, \dots, 1)$. We further generalise this notion and introduce the Pentagonal Patch Partition (PPP). We show which PPPs are admissible.