

On maximum packings of the complete λ -fold 3-uniform hypergraph with isomorphic loose 3-cycles.

Saad El-Zanati
Mathematics Department
Illinois State University

Joint-work with the ISU Math REU Team & the following REU participants:

*Dontez Collins**, *Sussex Technical High School, Georgetown, DE*
*Daryl Conko-Camel**, *Salish Kootenai College, Pablo, MT*
*Rachel Liebrecht**, *Ohio Northern University, Ada, OH*
*Alexandro Vasquez**, *Manhattan College, Bronx, NY*

Let ${}^\lambda K_n^{(3)}$ denote the λ -fold complete 3-uniform hypergraph of order n and let H denote the 3-uniform hypergraph with vertex set $\{a, b, c, d, e, f\}$ and edge set $\{\{a, b, c\}, \{c, d, e\}, \{e, f, a\}\}$. We settle the problem of finding maximum H -packings of ${}^\lambda K_n^{(3)}$.