

On packing and covering problems

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Abstract

In this talk, I will take you for a walk in the area of packing and covering. We will start in a geometric setting, reviewing some easy questions, before joining the area of combinatorial optimisation. Finally, we turn to packing and covering balls in graphs - a setting in which I have worked recently.

Simply speaking, for both problems we consider a ground set of elements and subsets of the ground set. When packing we look for subsets with empty intersection. When covering we look for several subsets whose union contains the ground set. Notice that packing people is a very present problem these days of confinement.