

# COLLOQUIUM

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11-20-14

NECKERS 156 | 3PM

RECEPTION IMMEDIATELY FOLLOWING IN THE MATH LIBRARY

A NEW TECHNIQUE FOR FINDING SMALL KIRKMAN COVERING AND PACKING DESIGNS; A  $KCD(11)$ , A CANONICAL  $KCD(13)$ , AND MORE EXAMPLES.

## [ABSTRACT]

We present a new technique which we call the 'type/unlabelled/labelled' technique for finding, or determining the non-existence of, small Kirkman covering and packing designs. Using this technique and different computational methods, we construct a new  $KCD(11)$ , and a new canonical  $KCD(13)$ , and make some progress on the existence question of a  $KPD(19, 8)$ .