

## **New Recursive techniques to construct combinatorial designs from smaller simple designs**

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Tran Van Trung introduced, in 2017 and 2018, new recursive techniques to construct new  $t - (v, k, \lambda)$  designs. While one of them employs known resolutions to create them, in this study, we show the construction of new  $t - (v, k, \lambda)$  designs using his other technique, which we will call the "Basic Technique", using the collection of all known simple designs with smaller parameters to create new ones. We also introduce an efficient method to perform these constructions.

Keywords:  $t$ -designs, resolutions, recursive technique