



Designing Computer Experiments with Better OA-based Latin Hypercubes

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OA-based Latin hypercubes are easy to produce and inherit the projection property of the underlying orthogonal array, and have thus become popular choices of designs for computer experiments. This paper explores some opportunities that allow even better Latin hypercubes to be generated from orthogonal arrays. We obtain two classes of designs, each of which enjoys an additional projection property besides those of ordinary OA-based Latin hypercubes.

Keywords: low dimensional projection; orthogonal array; space-filling design; strong orthogonal array; (t, m, s) -net.