Mechanism application

Theory basis

Low discrepancy sequence:
Halton-set, GLP-set, Sobol-set, et al

By K.T. Fang and Y. Wang

Number-theory based method (NTM)

Uniform DOE (U-design)

Promotion in tolerance analysis
- Output error statistics precision
- Output error statistics efficiency
- Tolerance sensitivity analytical precision

Promotion in tolerance synthesis
- Representative and uniform distributed tolerance assignments
- Adaptive to manufacturing capacity

Start
Manufac-turing capacity

First stage of DOE
Statistics of responses
Tolerance sensitivity

Second stage of DOE
Tolerance re-division
Statistics of responses

Tolerance assignments