

# Design of experiment for regression models with constraints

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## Abstract

We consider the linear regression model with parameter constraints, i.e. regression model with constraints of the type I. For this model we present the exact form of the criterial function and the iterative computation of optimum designs.

We focused on the criterion of local  $A$ -optimality, the criterion of local  $D$ -optimality and the criterion of local  $C$ -optimality. The aim of the presented contribution is to show the exact form of the gradient of the considered local criterion functions.

## Keywords

Regression model with parameter constrains,  $A$ -optimal design,  $D$ -optimal design,  $C$ -optimal design.

## References

- [1] Pázman, A. (2002). Optimal design of nonlinear experiments with parameter constrains. *Metrika* 56, 113–130.