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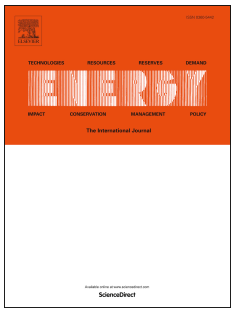

An efficient Bayesian experimental calibration of dynamic thermal models

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Nomenclature

Notations

x, y, z	Scalars
$\mathbf{x}, \mathbf{y}, \mathbf{z}$	Vectors
$\mathbf{A}, \mathbf{B}, \mathbf{C}$	Matrices
$\mathbb{R}^q$	Space of dimension q
Notational conventions	
$\mathbf{A}^{\mathrm{T}}$	Matrix transpose
$\mathbf{A}^{-1}$	Matrix inverse
$\mathbf{A}^{-1/2}$	$\left(\mathbf{A}^{1/2}\right)^{-1}$
$\mathbf{A}^{-\mathrm{T}/2}$	$\left(\mathbf{A}^{-1/2}\right)^{\mathrm{T}}$
$\det(\mathbf{A})$	Determinant of the matrix **A**
$\mathrm{tr}(\mathbf{A})$	Trace of the matrix **A**
$\dot{\mathbf{x}}$	Time derivative of vector **x**
$\partial \mathbf{x} / \partial \theta_i$	Partial derivative of **x** with respect to θ_i
$\mathrm{diag}(a_1, a_2, \dots, a_N)$	Diagonal matrix with diagonal values $a_1, a_2, \dots, a_N$
$\mathbb{E}[\cdot]$	Expected value
$p(\mathbf{x})$	Probability density function (pdf) of a random variable **x**
$p(\mathbf{x}\|\mathbf{y})$	Conditional pdf of vector **x** given vector **y**
$\mathbf{x} \sim p(\mathbf{x})$	Random variable **x** with probability distribution $p(\mathbf{x})$
$\propto$	Proportional
$\approx$	Approximately equal
$\mathbf{x}_{1:N}$	Set of values $\mathbf{x} = [\mathbf{x}_1, \mathbf{x}_2, \dots, \mathbf{x}_N]$