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An efficient Bayesian experimental calibration of dynamic thermal models

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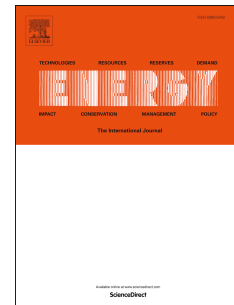
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Nomenclature

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}^T	Matrix transpose
\mathbf{A}^{-1}	Matrix inverse
$\mathbf{A}^{-1/2}$	$(\mathbf{A}^{1/2})^{-1}$
$\mathbf{A}^{-T/2}$	$(\mathbf{A}^{-1/2})^T$
$\det(\mathbf{A})$	Determinant of the matrix \mathbf{A}
$\text{tr}(\mathbf{A})$	Trace of the matrix \mathbf{A}
$\dot{\mathbf{x}}$	Time derivative of vector \mathbf{x}
$\partial \mathbf{x} / \partial \theta_i$	Partial derivative of \mathbf{x} with respect to θ_i
$\text{diag}(a_1, a_2, \dots, a_N)$	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 \mathbf{x}
$p(\mathbf{x} \mathbf{y})$	Conditional pdf of vector \mathbf{x} given vector \mathbf{y}
$\mathbf{x} \sim p(\mathbf{x})$	Random variable \mathbf{x} with probability distribution $p(\mathbf{x})$
\propto	Proportional
\approx	Approximately equal
$\mathbf{x}_{1:N}$	Set of values $\mathbf{x} = [\mathbf{x}_1, \mathbf{x}_2, \dots, \mathbf{x}_N]$

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