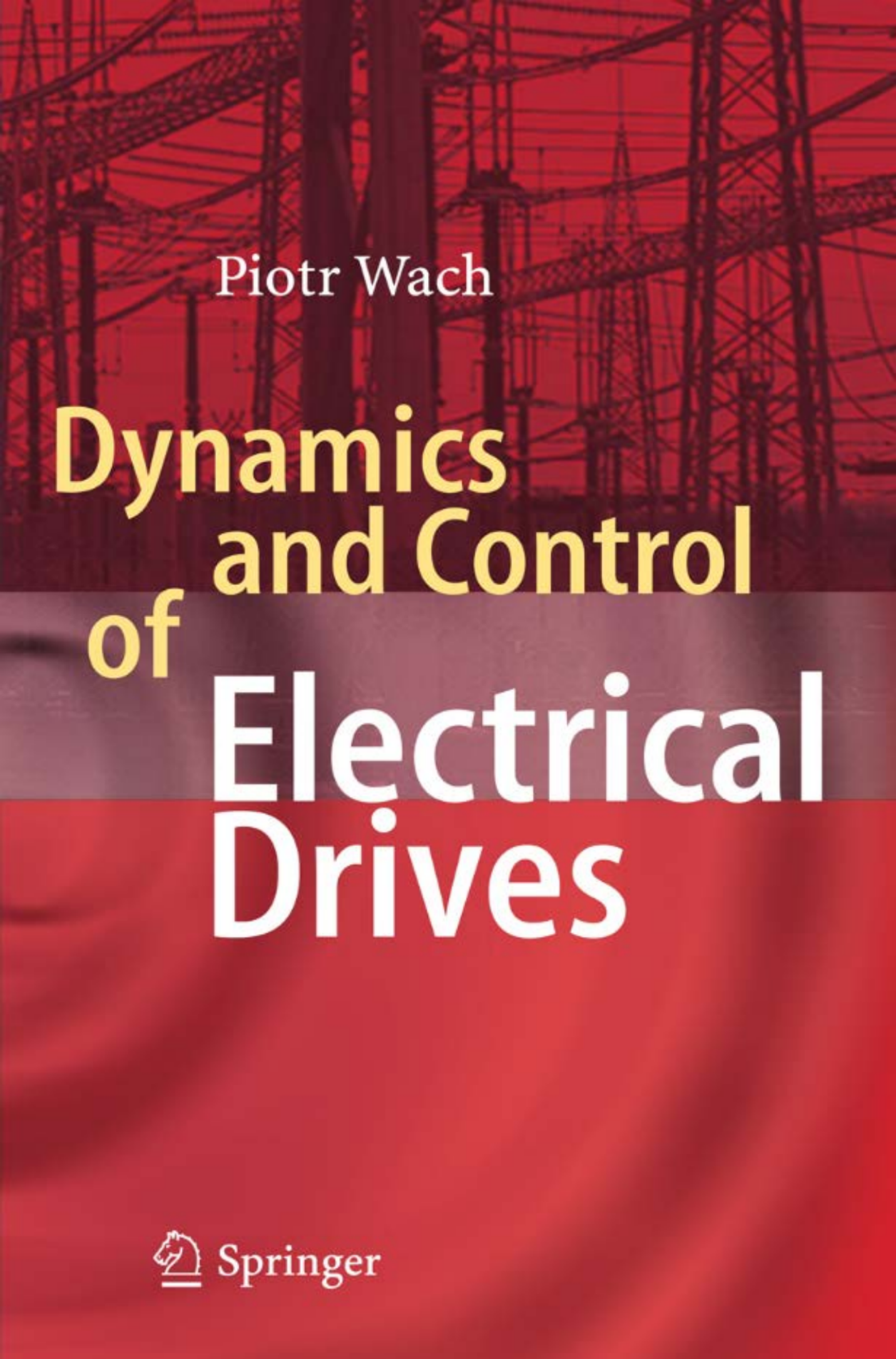
Piotr Wach
Dynamics and Control of Electrical Drives
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To my dear wife Irena

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Piotr Wach

Notation Index

$a = 2\pi / 3$	- phase shift between 3-phase symmetrical sine curves
$\mathbf{a} = \dot{\mathbf{v}} = \ddot{\mathbf{r}}$	- acceleration vector
$\delta A, \delta A_m, \delta A_e$	- virtual work, its mechanical and electrical component
$\mathbf{A}$	- vector potential of a magnetic field
$\mathbf{A}_2, \mathbf{A}_3$	- skew symmetric matrices: 2- and 3- dimentional respectively
$\mathbf{B}$	- magnetic induction vector
C	- electrical capacity
D	- viscous damping factor
e_k	- electromotive force (EMF) induced in k-th winding
E	- total energy of a system
$f_k(\ldots)$	- analytical notation of holonomic constraints function
$\mathbf{F}, F_i$	- vector of external forces, i-th component of this vector
f_L, f_s, f_r	- frequency of voltage (current): feeding line, stator, rotor
$\mathbf{g}$	- acceleration vector of earth gravitation force
g	- number of branches of electric network
h	- number of holonomic constraints
$i = \dot{Q}$	- electric current as a derivative of electrical charge
i_f, i_a	- excitation current, armature current
$\underline{I}$	- symbolic value of sinusoidal current
$\mathbf{I}$	- matrix of inertia of a rigid body
$\mathbf{i}_s = [i_{s1}\ i_{s2}\ i_{s3}]^T$	- vector of a 3-phase stator currents
$\mathbf{i}_{s12} = [i_{s1}\ i_{s2}]^T$	- vector of a 3-phase stator currents in a star connected system
$\mathbf{i}_{r13} = [i_{r1}\ i_{r3}]^T$	- vector of a 3-phase rotor currents in a star connected system
$\mathbf{i}_r = [i_{r1}\ i_{r2}\ \ldots i_{rm}]^T$	- vector of a m-phase rotor currents
$\mathbf{i}_{s0uv}, \mathbf{i}_{r0uv}$	- vectors of transformed stator, rotor currents in $0, u, v$ axes
$\mathbf{i}_{suv}, \mathbf{i}_{ruv}$	- vectors of transformed stator, rotor currents to u, v axes