List of symbols for physical quantities used in the textbook

"Ocean Waves and Oscillating Systems", ISBN 0-521-78211-2.

In the following table, mathematical symbols are listed in the first (left-hand) column. For physical quantities the SI unit is specified in the second column, but this column is empty for general mathematical quantities. For some matrices and column vectors, the elements and components, respectively, may have different SI units. In such cases, entries in the second column of the table are marked with an asterisk (*) or a dagger (†) referencing to a footnote below the table.

The third column shows book pages where a symbol is first used, or defined/explained. A short comment is given in the fourth column.

Some symbols, which are used on only one page or a few consecutive pages, are not included in the table.

Observe that when a circumflex (ˆ) is used above a symbol, it always denotes the complex amplitude of the corresponding quantity.

For 2-dimensional cases, a prime symbol (′) is used (e.g. on pages 96, 124, 179–181 and 218–221) to denote per-unit-width quantities. Thus, e.g., F', m', Z', R' and $\mathbf{h}'$ denote 2-dimensional quantities corresponding to 3-dimensional quantities F, m, Z, R and $\mathbf{h}$, respectively.

In Section 7.2, the subscript e is omitted on excitation parameters (excitation forces F_{ij}, excitation-force coefficients f_{ij}, excitation volume flows Q_k and excitation-volume-flow coefficients q_k). See page 239.

symbol	SI unit	page	comment
a	[m]	133	radius of immersed body
$a(t)$	[m]	139	undisturbd incident wave elevation at the origin
$a_k^{\pm}$	[m/Pa]	234	2 dim. far-field coeff. for OWC k's radiation
$\mathbf{a}(\theta)$	[m]*	145, 254	far-field-coefficient col. vector for radiated wave
$\mathbf{a}_p(\theta)$	[m^4/(N s)]	254	OWC part (partitioned vector) of $\mathbf{a}(\theta)$
$\mathbf{a}_u(\theta)$	[m]*	254	oscillating-body part (partitioned vector) of $\mathbf{a}(\theta)$
$A(\omega)$	[m s]	139	Fourier transform of $a(t)$
$A^{\pm}$	[m]	96	2 dim. far-field coeff. for outgoing plane waves
$A_{ij} = A_i$	[m]	239	cmplx. elev. ampl. of incident wave at body i
A_k	[m]	239	cmplx. elev. ampl. of incident wave at OWC k
A	[m]	44, 70	cmplx. elevation ampl. of incident wave, at $x = 0$
B	[m]	44, 71	cmplx. elev. ampl., at $x = 0$, of bckw. prop. wave
$A(\theta)$	[m^2/s]	90, 95	far-field coefficient
$A_i(\theta)$	[m^2/s]	97	(global) far-field coefficient for body i
$B_i(\theta)$	[m^2/s]	98	local far-field coefficient for body i
$A_r(\theta)$	[m^2/s]	145	far-field coefficient for the radiated wave
$\mathbf{A}$		21	system matrix for general state-space problem
$\mathbf{A}_p$	[m]	239	col. vector composed of all N_k components A_k
$\mathbf{A}_u$	[m]	239	col. vector composed of all $6N_i$ components A_{ij}
$\mathbf{b}_p(\theta_p)$	[m]*	152	local far-field-coefficient column vector of body p
B	[m]	44, 71	cmplx. elev. ampl., at $x = 0$, of bckw. prop. wave
$B_i(\theta)$	[m^2/s]	98	local far-field coefficient for body i

$B_{kk'}$	$[m^5s^{-1}N^{-1}]$	229	radiation susceptance (element of matrix $\mathbf{B} = \mathrm{Im}\mathbf{Y}$)
$\mathbf{B}$	$[m^5s^{-1}N^{-1}]$	241	radiat'n susceptance matrix (imag. p't of matrix $\mathbf{Y}$)
$\mathbf{B}$		21	input matrix for general state-space problem
$\mathbf{C}$		21	output matrix for general state-space problem
$\mathbf{C}$	$[m^2]^\dagger$	241	real p't of matr. $\mathbf{H}$ represntng OWC-body interact'n
d_i	[m]	97	distance from global origin to local origin
$d_{pp'}$	[m]	151	distance between reference axes for bodies p and p'
d_a	[m]	234	maximum absorption width
$d_{a,MAX}$	[m]	216	maximum absorption width
$D(kh)$	[1]	73, 74	dim'less depth function $[D = (2\omega/g)v_g = (2k/g)v_g v_p]$
$e(kz)$	[1]	66, 71	relative variation of hydrodyn. pressure downwards
E_k	$[J/m^2]$	76	wave's stored kinetic energy per unit water surface
E_p	$[J/m^2]$	76	wave's stored potential energy per unit water surf.
E	$[J/m^2]$	77, 83	wave's stored energy per unit water surface
$f(t)$		28	function of time [inverse Fourier transform of $F(\omega)$]
f_{pj}, f_{ij}	[N/m]*	171, 253	excitation-force coefficient
$\mathbf{f}$	[N/m]*	139, 147	excitation-force-coefficient 6 dim. column vector
$\mathbf{f}$	[N/m]*	240	excitation-force-coefficient $6N_i$ dim. diagonal matrix
$\mathbf{f}_g$	[N/m]*	158	excitation-force-coefficient $6N$ dim. column vector
$\mathbf{f}_{g,p}$	[N/m]*	159	global excit'n-force-coef. 6 dim. col. vector for body p
$\mathbf{f}_p$	[N/m]*	159	local excit'n-force-coef. 6 dim. col. vector for body p
F	[N]	4	applied external force
$\hat{F}$	[N]	13	complex amplitude of force F
$F(\omega)$		28	Fourier transform of function $f(t)$
F_d'	[N/m]	81	drift force per unit width
F_e	[N]	51	excitation force due to incident wave
$F_{e,j}$	[N]*	123	component of 6 dimensional column vector $\mathbf{F}_e$
$\hat{F}_{e,1}'$	[N/m]	124	complex surge-excitation-force ampl. per unit width
$F_e(\omega)$	[Ns]*	204	Fourier transform of excitation force $F_{e,t}(t)$
$F_{e,t}(t)$	[N]*	204	wave excitation force
F_{ext}	[N]	184, 204	external force [excitation force plus PTO force]
F_j	[N]*	122	component of 6 dimensional column vector $\mathbf{F}$
F_r, $F_{r,3}$	[N]	50, 183	reaction force due to wave radiation
F_R	[N]	4	damping force
F_S	[N]	4	spring force
$F_{t,i}$	[N]*	212	i comp. of $6N$ dim. col. vector for total wave force
$F_{u,3}$	[N]	183	PTO (load & control) force
$F_{u,j}$	[N]*	202	load force
$F_u(\omega)$	[Ns]*	204	Fourier transform of PTO force $F_{u,t}(t)$
$F_{u,t}(t)$	[N]*	204	PTO (load & control) force
$\mathbf{F}$	[N]*	122	6 dimensional column vector for wave force on body
$\mathbf{F}$	[N]*	240	N dim. column excitation-force vector for all bodies
$\mathbf{F}_e$	[N]*	123, 158	6 or $6N$ dim. col. vector for wave excitation force
$\mathbf{F}_{e,t}(t)$	[N]*	139, 142	column vector for wave excitation force
$\mathbf{F}_e(\omega)$	[Ns]*	139	column vector for Fourier transformed $\mathbf{F}_{e,t}(t)$
$\mathbf{F}_{r,t}(t)$	[N]*	139	column vector for wave radiation reaction force

$\mathbf{F}_r(\omega)$	[Ns]*	139	column vector for Fourier transformed $\mathbf{F}_{r,t}(t)$
$\mathbf{F}_{FK,p}$	[N]*	160	column vector for the Froude-Krylov force for body p
$\mathbf{F}_{d,p}$	[N]*	160	column vector for the diffraction force for body p
g	[m/s^2]	45, 59	acceleration of gravity ($g \approx 9.8$ m/s^2)
$G_i(\omega)$	[N/m]	184	intrinsic transfer function
$G_{kk'}$	[m^{5}s^{-1}N^{-1}]	229, 249	radiation conductance (element of matrix $\mathbf{G}$)
$\mathbf{G}$	[m^{5}s^{-1}N^{-1}]	241	radiation conductance matrix (real part of matrix $\mathbf{Y}$)
h	[m]	61, 65	water depth
$h(t)$		26	(general) impulse response function
h_{ij}	[m]*	253	Kochin-function coefficient for body i's mode j
h_k	[m^4/(Ns)]*	253	Kochin-function coefficient for OWC k
$h_l(t)$	[s^{-1}]	105	propagation impulse response for wave elevation
$h_p(t)$	[Nm^{-3}s^{-1}]	109	impulse response for hydrodyn. pressure vs. elevation
$\mathbf{h}(t)$	[Ns/m]*	140	inverse Fourier transform of 6×6 matrix $\mathbf{H}(\omega)$
$\mathbf{h}(\theta)$	[m]*	145, 254	Kochin-function-coeff. col. vector for radiated wave
$\mathbf{h}_u(\theta)$	[m]*	254	oscillating-body part (partitioned vector) of $\mathbf{h}(\theta)$
$\mathbf{h}_p(\theta)$	[m^4/(N s)]	254	OWC part (partitioned vector) of $\mathbf{h}(\theta)$
$H(\omega)$		27	(general) transfer function [Fourier transform of $h(t)$]
$H_i(\theta)$	[m^2/s]	99	(general) Kochin function
$H_r(\theta)$	[m^2/s]	145	Kochin function for the radiated wave
$H_l(\omega)$	[1]	105	propagation transfer function for wave elevation
$H_p(\omega)$	[N m^{-3}]	109	transfer function for hyrodyn. pressure vs. elevation
$H_{ij,k}$	[m^2]†	239	element of $6N_i \times N_k$ matrix $\mathbf{H}$
$H_{k,ij}$	[m^2]†	239	body-i's-mode-j's-coupling-action-on-OWC-k coef.
$\mathbf{H}(\omega)$	[Ns^2/m]*	140	6×6 radiation-force transfer-function matrix
$\mathbf{H}$	[m^2]†	240	OWC-body radiation coupling $6N_i \times N_k$ matrix
i		150	subscript for body group's oscillation-mode number
I	[W/m^2]	46, 77	intensity of wave's energy transport
$I(\phi_i, \phi_j)$		93	useful integral defined by eqn. (4.240)
$\mathbf{I}$		147, (94)	column-vector version of above useful integral I
j		120, 150	subscript ($j = 1, 6$) for mode number of osc. body
J	[W/m]	47, 77	wave energy transport, wave-power level
$J_{ij,k}$	[m^2]†	250	imag. part of $H_{ij,k}$ [element of $6N_i \times N_k$ matrix $\mathbf{J}$]
$\mathbf{J}$	[m^2]†	241	imaginary part of rad'n coupling $6N_i \times N_k$ matrix $\mathbf{H}$
k	[rad/m]	44, 66, 70	angular repetency (wave number)
$\mathbf{k}(t)$	[N/m]*	140	inverse Fourier transform of matrix $\mathbf{K}(\omega)$
$\mathbf{K}(\omega)$	[Ns/m]*	140	6×6 radiation-force transfer-function matrix
m, m_m	[kg]	4, 49	mass of oscillating body
m_m	[kg]	49, 183	mass of oscillating body
$m_r(\omega)$	[kg]	50	(hydrodynamically) "added mass"
$m_{j'j}(\omega)$	[kg]*	127	element of 6×6 "added mass" matrix $\mathbf{m}(\omega)$
$\mathbf{m}(\omega)$	[kg]*	140, 150	6×6, or $6N \times 6N$, "added mass" matrix
$\mathbf{m}_i$		21	eigenvector of general state-space matrix $\mathbf{A}$
$\vec{n}$	[1]	118, 149	unit-normal vector on wet surface of immersed body
$\vec{n}_p$	[1]	169	unit-normal vector on wet surf. of immersed body p
n_{ij}	[1]*	245	j component of unit normal on wet surface S_i of body i

$\mathbf{n}$	[1]*	119	6 dim. unit-normal column vector on wet surface
$\mathbf{n}_p$	[1]*	158, 170	6 dim. unit-normal col. vector on wet surf. of body p
N	[1]	150	total number of immersed interacting oscillating bodies
N	[1]	238	total number of WEC group's oscillating modes
N_i	[1]	238	number of immersed osc. bodies in the WEC group
N_k	[1]	238	number of OWCs in the WEC group
p		149	subscript indicating body number in a group of bodies
p	[Pa]	44	dynamic pressure
p	[Pa]	64	hydrodynamic pressure
p_a	[Pa]	236	static (ambient) air pressure
p_k	[Pa]	62, 226	dynamic air pressure
p_k	[Pa]	238	component of N_k dimensional column vector $\mathbf{p}$
$\mathbf{p}$	[Pa]	240	N_k dim. col. vector for OWCs' dyn. air pressures
P	[W]	17	power, rate of work
$P(t)$	[W]	122	instantaneous power received by body from wave
P	[W]	199	absorbed wave power (in time average)
P_{max}	[W]	200	(relative) maximum absorbed power [cf. Probl. 6.5]
P_{MAX}	[W]	200	(absolute) maximum absorbed power
P_a	[W]	51	absorbed power
$P_{a,max}$	[W]	51	(relative) maximum absorbed power [cf. Probl. 6.5]
$P_{a,MAX}$	[W]	52	(absolute) maximum absorbed power
P_e	[W]	199, 229	excitation power
$P_{e,OPT}$	[W]	200	optimum excitation power
P_r	[W]	48, 91, 199	radiated power
$P_{r,OPT}$	[W]	200	optimum radiated power
P_u	[W]	202	converted useful power
$P_{u,MAX}$	[W]	202	(absolute) maximum converted useful power
q		161	subscript ($q = 1, 3$) for mode number of osc. body
$q_{e,k}$	[m^2/s]	228	excitation-volume-flow coefficient
$\mathbf{q}$	[m^2/s]	240	N_k dim. excit'n-volume-flow-coeff. col. vector
Q	[1]	5	quality factor for resonant oscillator
$Q_{e,k}$	[m^3/s]	228, 239	excitation volume flow (for OWC k)
$Q_{r,k}$	[m^3/s]	228	radiation volume flow (for OWC k)
$Q_{t,k}$	[m^3/s]	228	total volume flow (for OWC k)
$\mathbf{Q}$	[m^3/s]	240	N_k dim. excitation-volume-flow column vector
$r(\beta)$	[m]	99, 147	$r(\beta) \equiv (x\cos\beta + y\sin\beta)$
r, θ, z	[m, rad, m]	88	cylindrical coordinates
$R(\omega)$		28, 31	real part of the Fourier transform of $f(t)$ or of $h(t)$
R, R_m	[Ns/m]	4, 49	mechanical resistance
R_f	[Ns/m]*	183, 202	mechanical friction or loss resistance
$R_i(\omega)$	[Ns/m]*	205	intrinsic mechanical resistance
R_r	[Ns/m]	49	radiation resistance
R_u	[Ns/m]*	202	mechanical load resistance
$R_{j'j}(\omega)$	[Ns/m]*	127	element of 6×6 radiation resistance matrix $\mathbf{R}(\omega)$
$R_{pj,p'j'}$	[Ns/m]*	172	element of 6×6 partial matrix $\mathbf{R}_{pp'} = \mathrm{Re}\{\mathbf{Z}_{pp'}\}$
$\mathbf{R}(\omega)$	[Ns/m]*	140, 150	6×6, or $6N \times 6N$, radiation resistance matrix

$\mathbf{R}_f$	[Ns/m]*	182, 215	friction resistance matrix
s_3	[m]	183	heave displacement of immersed body
$\vec{s}$, $\vec{s}_p$	[m]	118, 153	vector from ref. pt. to wet surf. of immersed body
$S(f)$	[m^2/Hz]	83	energy spectrum for real ocean waves
S	[m^2]	93, 119	totality of wave-oscillator interacting surfaces
S, S_m	[N/m]	4, 49	spring stiffness
S_b	[N/m]	183	buoyancy stiffness
S_b	[m^2]	92	wet surface of all immobile structures
S_i	[m^2]	92	wet surface of immersed body i
S_k	[m^2]	92, 227	surface of OWC's internal water surface
S_p	[m^2]	149	wet surface of body p
S_{wp}, S_w	[m^2]	161, 166	water-plane area (of body p)
S_0	[m^2]	92	open-air vs. water interface (at $z = 0$)
S_∞	[m^2]	92	envisaged (non-substantial) far-field surface
t	[s]	5, 58	time coordinate
u, u_3	[m/s]	6, 184	velocity of body
$\hat{u}$	[m/s]	12, 49	complex velocity amplitude for body
$\vec{u}$	[m/s]	61, 118	velocity of immersed body's wet surface
$u_i = u_{pj}$	[m/s]*	150	component of the $6N$ dimensional column vector $\mathbf{u}$
u_{ij}	[m/s]*	238	component of $6N_i$ dimensional column vector $\mathbf{u}$
u_j	[m/s]*	120	component of 6 dimensional column vector $\mathbf{u}$
$u_{j,OPT}$	[m/s]*	200	optimum value of u_j corresponding to P_{MAX}
$u(t)$		21, 31	input function for linear system
$\mathbf{u}(t)$		21	input vector for state-space problem
$\mathbf{u}$	[m/s]*	120, 152	$6N$ dimensional column vector for bodies' velocity
$\mathbf{u}$	[m/s]*	240	$6N_i$ dimensional column vector for bodies' velocity
$\mathbf{u}_t(t)$	[m/s]*	139	6 dim. column vector for body velocity vs. time
$\mathbf{u}(\omega)$	[m]*	139	6 dim. column vector for Fourier transformed $\mathbf{u}_t(t)$
$\mathbf{u}_{OPT}$	[m/s]*	214	optimum value of $6N$ dim. column vector $\mathbf{u}$
$U(\omega)$		31	Fourier transform of the input function $u(t)$
$\vec{U}$	[m/s]	118	velocity of immersed body's reference point
$\mathbf{U}$	[m/s]*	214	optimum value of $6N$ dim. column vector $\mathbf{u}$
$\mathbf{U}$	[m/s]*	244	optimum value of $(6N_i + N_k)$ dim. col. vector $\hat{\boldsymbol{v}}$
$\vec{v}$	[m/s]	58	velocity of fluid particle
v_x, v_z	[m/s]	45, 71	components of fluid-particle velocity $\vec{v}$
v_g	[m]	46, 70, 73	wave's group velocity
v_p	[m/s]	44, 70, 73	wave's phase velocity
V_p, V	[m^3]	161, 166	volume of displaced water (for immersed body p)
W	[J]	5, 17	energy, work
W_k	[J]	19, 156	kinetic energy
W_p	[J]	19, 156	potential energy
W_u	[J]	204	converted useful energy
$W_{u,MAX}$	[J]	205	maximum converted useful energy
x, y, z	[m]	60, 64	Cartesian coordinates
x, $\dot{x}$, $\ddot{x}$	m, $\frac{\text{m}}{\text{s}}$, $\frac{\text{m}}{\text{s}^2}$	4	displacement, velocity, acceleration (of osc. body)
$\hat{x}$	[m]	10	complex amplitude of displacement x

$\mathbf{x}(t)$		21	state variable vector for state-space problem
$X(\omega)$		28, 31	imaginary part of Fourier transform of $f(t)$ or of $h(t)$
X	[Ns/m]	14	mechanical reactance
$X_r(\omega)$	[Ns/m]	50	radiation reactance
$X_{j'j}(\omega)$	[Ns/m]*	127	element of 6×6 radiation reactance matrix $\mathbf{X}(\omega)$
$\mathbf{X}(\omega)$	[Ns/m]*	150, 241	$6N \times 6N$ or $6N_i \times 6N_i$ radiation reactance matrix
$y(t)$		21, 31	output (response) function
$\mathbf{y}(t)$		21	output vector (for state-space problem)
$Y(\omega)$		31	Fourier transform of the output (response) function
$Y_{k,k'}$	[$m^5s^{-1}N^{-1}$]	228, 239	element of radiation admittance matrix $\mathbf{Y}$
$\mathbf{Y}$	[$m^5s^{-1}N^{-1}$]	240	$N_k \times N_k$ radiation admittance matrix
z_k	[m]	60	z coord. for equilibr. internal water surf. of OWC
$z_i(t)$	[N/m]*	186, 204	inverse Fourier transform of $Z_i(\omega)$
Z	[Ns/m]	14	(complex) mechanical impedance
$Z_i(\omega)$	[Ns/m]*	184, 203	intrinsic mechanical impedance
$Z_m(\omega)$	[Ns/m]	50	(complex) mechanical impedance
$Z_r(\omega)$	[Ns/m]	50	radiation impedance
$Z_u(\omega)$	[Ns/m]*	203	mechanical load impedance
$Z_{u,OPT}$	[Ns/m]*	204	optimum mechanical load impedance
$Z_{j'j}(\omega)$	[Ns/m]*	126	element of 6×6 radiation impedance matrix $\mathbf{Z}(\omega)$
$Z_{i'i}(\omega)$	[Ns/m]*	150	element of $6N \times 6N$ rad'n impedance matrix $\mathbf{Z}(\omega)$
$Z_{ij,i'j'}$	[Ns/m]*	246	element of $6N_i \times 6N_i$ radiation impedance matrix $\mathbf{Z}(\omega)$
$Z_{pj,p'j'}$	[Ns/m]*	171	element of 6×6 partial matrix $\mathbf{Z}_{pp'}$ of matrix $\mathbf{Z}(\omega)$
$\mathbf{z}(t)$	[N/m]*	139	inverse Fourier transform of $\mathbf{Z}(\omega)$
$\mathbf{Z}(\omega)$	[Ns/m]*	138, 150	6×6 or $6N \times 6N$ dim. radiation impedance matrix
$\mathbf{Z}(\omega)$	[Ns/m]*	240	$6N_i \times 6N_i$ dimensional radiation impedance matrix
$\mathbf{Z}_{pp'}(\omega)$	[Ns/m]*	151, 171	partial 6×6 rad'n imp. matrix relating bodies p and p'
$\alpha(\omega)$	[$(Ns)^2$]	205	function appearing in optimum-control problem
α_i	[rad]	97	angle defining direc'n from global origin to local origin
β	[rad]	72, 84	angle of incidence for plane wave
γ_j	[rad]	199	phase angle between velocity and excitation force
δ	[s^{-1}]	5	damping coefficient
$\delta(t)$	[s^{-1}]	25	delta distribution (Dirac's delta function)
$\mathbf{\Delta}$	[Ns/m]*	242	$(6N_i + N_k) \times (6N_i + N_k)$ dim. radiation damping matrix
ϵ	[1]	219	relative absorbed wave power for two-dimensional case
$\epsilon_{jj'}$	[1]	133	non-dimensionalised element of rad'n resistance matrix
η	[m]	61	elevation of the interface between water and open air
η_f, η_b	[m]	71	plane-wave elevation propagating forwards, backwards
η_k	[m]	62	elevat'n of interf. betw. water and OWC air chamber
η_0	[m]	139	elevation of (undisturbed) incident plane wave
θ	[rad]	87	angle of cylindrical coordinate system
Θ_m, Θ_j	[1]	88, 170	function of θ
$\hat{\kappa}$	[N]*	243	$(6N_i + N_k)$ dimensional wave-excitation column vector
λ	[m]	44, 72	wavelength
$\mu_{jj'}$	[1]	133, 166	non-dimensionalised element of "added-mass" matrix

ρ	[kg/m^3]	45, 58	mass density of fluid
$\hat{\boldsymbol{v}}$	[m/s]*	243	$(6N_i + N_k)$ dimensional oscillator-state column vector
φ	[rad]	6	phase constant
φ_i	[m]*	152	component of $6N$ dimensional column vector $\boldsymbol{\varphi}$
φ_{ij}	[m]*	244	component of $6N_i$ dimensional column vector $\boldsymbol{\varphi}_u$
φ_j	[m]*	120	component of 6 dimensional column vector $\boldsymbol{\varphi}$
φ_k	[m^4/(N s)]	228, 244	component of N_k dimensional column vector $\boldsymbol{\varphi}_p$
$\boldsymbol{\varphi}$	[m]*	144, 152	$6N$ dim. column vector for radiation-potential coef.
$\boldsymbol{\varphi}$	[m]*	254	$N = 6N_i + N_k$ dim. col. vect. for rad.-potential coef.
$\boldsymbol{\varphi}_p$	[m]*	153 only	6 dim. partial column vector for rad'n-potential coef.
$\boldsymbol{\varphi}_p$	[m^4/(N s)]	244	N_k dim. column vector for rad'n-potential coef.
$\boldsymbol{\varphi}_u$	[m]*	244	$6N_i$ dim. column vector for radiation-potential coef.
ϕ	[m^2/s]	59	velocity potential
$\hat{\phi}$	[m^2/s]	64	complex amplitude of velocity potential
ϕ_0	[m^2/s]	123	incident wave's velocity potential
ϕ_d	[m^2/s]	123	diffracted wave's velocity potential
ϕ_i, ϕ_j		93	func'n satisfying Lapl, eq'n. & hom. bound. cond.
ϕ_r	[m^2/s]	120	radiated wave's velocity potential
$\Phi \equiv \hat{\phi}_0$	[m^2/s]	98	symbol Φ used in Section 4.8, only
ψ	[m^2/s]	95	velocity potential satisfying rad'n cond'n at ∞
ω	[rad/s]	6, 44, 64	angular frequency (of harmonic wave)
ω_0	[rad/s]	5, 185	(undamped) natural angular frequency
$\vec{\Omega}$	[rad/s]	118	angular veloc. of immersed body about its ref. point
$\hat{\cdot}$		10, 44, 64	circumflex (ˆ) denotes cmplx. ampl. of sinus. osc.

(*) For physical quantities that are elements or components of matrices or column vectors, respectively, the SI units given apply when associated with oscillating bodies' translational modes (surge, sway, heave). Note that elements relating to rotational modes (roll, pitch, yaw) have different SI units. See pages 119, 122. In Section 7.2, matrices and column vectors also contain elements/components that are associated with OWCs and have SI units that are even more different from the SI unit given in the second column of the table. See pages 240–244.

(†) This SI unit m^2 is applicable to matrix elements that represent hydrodynamic coupling between OWCs and translational modes (surge, sway, heave) of oscillating bodies. With rotational modes (roll, pitch, yaw) the corresponding SI unit is m^3 instead of m^2. See Section 7.2, page 240.

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