NOMENCLATURE

$\mathbf{f}$	density of mass forces
g	acceleration of gravity
i	imaginary unit
J_ν	Bessel functions of the first kind
k	wavenumber
P_l^m	Legendre polynomials
p	pressure
s	Laplace variable
t	time
$\mathbf{v}$	fluid velocity
Y_ν	Bessel functions of the second kind
x, y, z	Cartesian coordinates

Greek Symbols

$\Gamma(q)$	Euler's gamma function
Γ^j_{ik}	Christoffel symbols of the second kind
Δ	Laplacian
δ^{ik}	Kronecker delta
δ^*	displacement layer thickness
δ^{**}	loss of momentum thickness
η	dynamic viscosity
λ	wavelength
ν	kinematic viscosity
ρ	fluid density
Φ	velocity potential
Ψ	stream function

$\mathbf{\Omega}$	rotor of velocity $\mathbf{v}$
ω	frequency

Subscript

∞	the value at infinity

Superscripts

$*$	Laplace transform
$-$	average value or complex conjugation
r	radial component
x	x component
y	y component
z	z component
θ, φ	transverse and polar component, respectively