A(x)	Weighted momentum matrix
D	Bredth of duct, m
F	Load vector
H	Length of duct, m
K	Stiffness matrix
p(x)	Basis function
Δt	Time step, s
u_f	Fluid velocity, m/s
u_s	Fluid velocity along the surface of duct, m/s
u_i	Nodal parameter of u at x=x$_i$
u_{ini}	Initial velocity of fluid, m/s
$u(x)$	Unknown scalar function of a field variable
v	Test function for MLPG method
w	Weight function
w_i	Gauss weights
x	Coordinate in x- direction
y	Coordinate in y- direction

Greek symbols

α	Penalty parameter
β	thermal expansion coefficient, K^{-1}
Γ	Boundary of global domain
Γ_1	Boundary of the top surface of the duct
Γ_2	Boundary of the left surface of the duct
Γ_3	Boundary of the bottom surface of the duct
Γ_3	Boundary of the right surface of the duct
μ	Dynamic viscosity, Ns/m^2
ρ	Density of material, kg/m^3
Φ	MLS shape function
Ω	Domain
Ω_Q	Local domain
$\partial \Omega_Q$	Boundary of local domain