Nomenclature

$\boldsymbol{f}$	body force density
C	local stiffness modulus of a bond accounting for distance effect
h	thickness of structure models under plane stress or plane strain assumption
t	time instant
φ	damage parameter describing bond breaking state
E	Young's modulus of solids
$\boldsymbol{T}$	pairwise force between two material particles connected by a bond
s	local normal deformation (stretch) of bond
s_0	critical stretch of bonds beyond which bond is broken
dt	time increment
$\boldsymbol{u}$	displacement vector
$\boldsymbol{v}$	speed vector of material particle
$\boldsymbol{x}$, $\boldsymbol{x}'$	location vector of material particles
$\boldsymbol{y}$, $\boldsymbol{y}'$	displacement vector of material particles
δ	material horizon serving as a representative length
$\boldsymbol{\eta}$	relative displacement vector of two material particles
υ	Poisson's ratio of solids
$\boldsymbol{\rho}$	mass density of material particle
$\boldsymbol{\xi}$	relative position vector of two material particles
$\boldsymbol{p}$	the traction prescribed on the boundary surface
G, D	the transfer function of the boundary traction and displacement constraint, respectively
a, v	aera and volume of material particle, respectively
J	stiffness coefficient
V_B, V	the volume of boundary layer and the volume of the body, respectively
L , W	the length and width of the plate，respectively
S	the total length of the boundary prescribed by non-zone traction
q	integrable function
e	energy per unit
$\boldsymbol{x}_m$	location vector of material particles on the boundary
e_x , e_y	the relative errors between peridynamic and the elasticity