

Spring Contraction,

For ,

If ,

If ,

(Old)

(New) Moments,

Resultant forces and moments on the interface of block (k, l) and (k, l-1),

코드화

H, D : (k,l)

Hm : (k,l-1), if l=1, Hm=0

M, Mm

Kd, Cd : (k,l)

DetlaD

U, DU, R, DR: (k,l)

Um, DUm, Rm DRm : (k,l-1), if l=1: Rm=DRm=0

FDL, FDR

MDL, MDR, MDLm, MDRm

BetaL = Um+Hm\*sin(Rm)+d\*(1-cos(Rm))

BetaL -= U –H \*sin(R )+d\*(1-cos(R ))

BetaL += DeltaD

BetaR = Um+Hm\*sin(Rm)-d\*(1-cos(Rm))

BetaR -= U –H \*sin(R )-d\*(1-cos(R ))

BetaR -= DeltaD

DBeta\_L = DUm+(Hm\*cos(Rm)+D\*sin(Rm))\*DRm

DBeta\_L-= DU -(H \*cos(R )-D\*sin(R ))\*DR

DBeta\_R = DUm+(Hm\*cos(Rm)-D\*sin(Rm))\*DRm

DBeta\_R-= DU -(H \*cos(R )+D\*sin(R ))\*DR

F\_DL=F\_DR=0

If ,

If ,

if BetalL<0: F\_DL = Kd \* Beta\_L + Cd \* DBeta\_L

if BetalR<0: F\_DR = Kd \* Beta\_R + Cd \* DBeta\_R

M\_DL = -FDL\*(H\*cos(R)-D\*sin(R))

M\_DR = -FDR\*(H\*cos(R)+D\*sin(R))

M\_DLm = -FDL\*(Hm\*cos(Rm)+D\*sin(Rm))

M\_DRm = -FDR\*(Hm\*cos(Rm)-D\*sin(Rm))

Accel[0] = (FDL +FDR ) / M

Accel[2] = (MDL +MDR ) / I

Accelm[0] = -(FDL +FDR ) / Mm

Accelm[2] = (MDLm+MDRm) / Im