

## GLOBAL CONSTANTS

SOLVER		Geometry	
dim	Dimension	elem	Connectivity
step_final	Steps	patch_con	Patch connectivity
SAVE_F	Save file each SAVE_F	patch_el	Patch element
SAVE_I	Save vector each SAVE_I	Area	Initial area
NR_iterations	Iterations of Newton Raphson	Area_p	Area of the patch
abs_tolerance	Abslute tolerance	x_0	Initial coordinates
rel_tolerance	Relative tolerance	elements	Number of elements
NR	Update K every NR steps	nodes	Number of nodes
IMPLICIT	Implicit 1 or explicit 0	mat_points	Number of material points
time_step	Time step without time factor	sp	Spatial dimension
time_factor	Time factor to update time step	df	Degrees of freedom per nodes
Time_final	Final time	xg_0	Initial material point coordinates
INITIAL_d	Initial displacements	h_ini	Initial mesh size
UW	Formulation U-UW-Upw...	h_nds	Initial mes size in nodes
INIT_file	Initial file name	node_connect	Element here node n is in
thickness	Thickness	b_dim	Dimension of b matrix
TYPE	OTM-MPM-FEM	s_dim	Dimension of stress vector
INIT_STEP	Initial step	f_dim	Dimension of def. gradient vector
INITIAL_COND	Initial conditions	element_near	Adyacent elements
F_BAR_W	F-bar multiplier (water)	BOUNDARY	
F_BAR	F-bar multiplier	b_mult	Multiplier of every step
B_BAR	B-bar flag	size	Number of boundaries
AXI	Axisymmetric flag	vad	Velocity vector (without multiplying)
LIN	Linearization flag	dad	Displacement vector (without multiplying)
REMAPPING	Remapping flag	constrains	Constrained flag
VARIABLE		MATERIAL	
rho_w	Density of the water	MAT	Material parameters
g	Gravity	MODEL	Flag of the employed model
LOAD		number	Number of material models
ext_forces_s	External forces vector	n	Number of material of node n
ext_acce	Exernal acceleration vector	e	Number of material of element e
load_mult	Multiplier of very step		
size	Number of external forces		

## STRUCTURE ARRAYS

TIME		GLOBAL	
t	Time in each step	d	Displacements
tp	Time in each plot step	a	accelerations
af	alpha f (Time integration scheme)	v	velocities
am	alpha m (Time integration scheme)	J	jacobian
alpha	alpha (Time integration scheme)	dgamma	Increment of plastic multiplier
delta	delta (Time integration scheme)	gamma	Plastic multiplier
theta	theta (Time integration scheme)	Sy	Size of the yield surface
gamma	gamma (Time integration scheme)	Sy_r	Reference yield surface (viscosity)
Mat_state		P0	Initial pressure
F	Deformation gradient	F	Deformation gradient
Be	Finger tensor	Be	Finger tensor
Sigma	Cauchy stress tensor	Sigma	Cauchy stress tensor
fint	Internal forces	fint	Internal forces
k	Permeability	k	Permeability
Pw	Pore pressure	Pw	Pore pressure
Fw	Water deformation gradient	Fw	Water deformation gradient
MATRIX		Es	Total strain
mass	Mass	Es_p	Plastic strain
damp	Damping	OUTPUT	
l_mass	Lumped mass	number	Number of output lists
l_mass_w	Lumped mass of the water	type	First column (1 load, 2 reaction)
l_mass_wn	Lumped mass of the water*n		Second column: number of applied load
l_damp	Lumped damping	ref_list	Ones in nodes where calculate reaction
Disp_field		list	Vector filled with inst values
d	Displacements	inst	Instantaneous vale of the output
a	Accelerations	name	Name of the output file
v	Velocities	MAT_POINT	
x_a	Nodal position	xg	Material point coordinates
Int_var		element	Element where is the mat point
dgamma	Increment of plastic multiplier	near	Neighbor nodes
gamma	Plastic multiplier	N	Shape functions
Sy	Size of the yield surface	B	B matrix (Derivatives)
Sy_r	Reference yield surface (viscosity)	EP	Strechs
P0	Initial pressure	J	Jacobian
		w	Weight (Gamma in LME)
		xi	Xi coordinates (Lambda in LME)