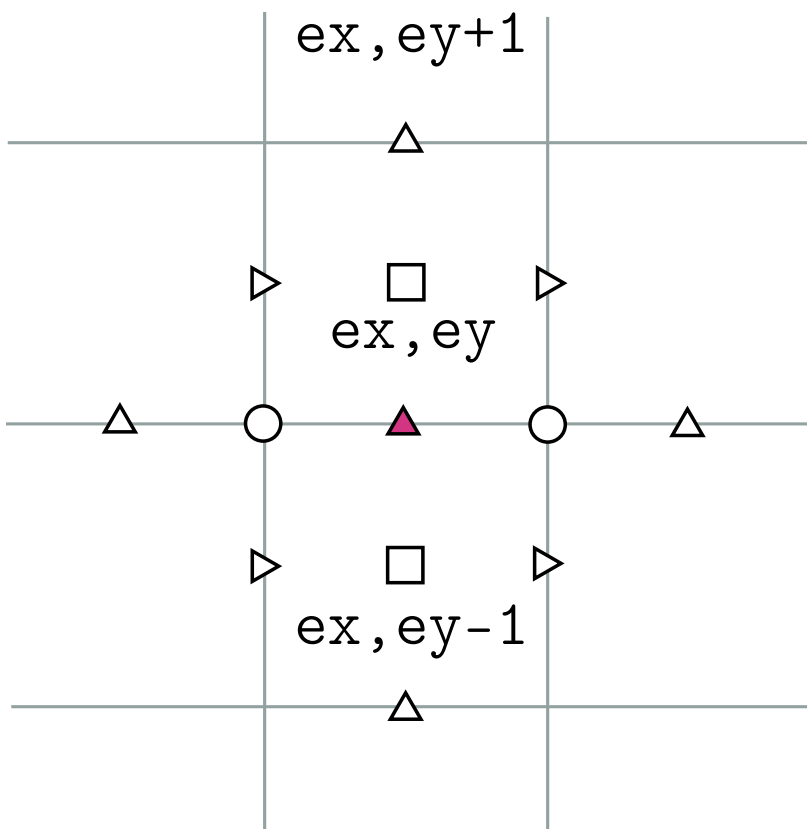


$$\nabla \cdot \left( \eta \left( \nabla u + (\nabla u)^T \right) \right) - \nabla p = f$$

Iterate over elements (ex,ey) where bottom edge isn't on boundary:



```
DMStagStencil row,col[11];
PetscScalar   valA[11];

row.i      = ex  ; row.j      = ey  ; row.loc      = DOWN;      row.c      = 0;
col[0].i    = ex  ; col[0].j    = ey  ; col[0].loc    = DOWN;      col[0].c    = 0;
col[1].i    = ex  ; col[1].j    = ey-1; col[1].loc    = DOWN;      col[1].c    = 0;
col[2].i    = ex  ; col[2].j    = ey+1; col[2].loc    = DOWN;      col[2].c    = 0;
col[3].i    = ex-1; col[3].j    = ey  ; col[3].loc    = DOWN;      col[3].c    = 0;
col[4].i    = ex+1; col[4].j    = ey  ; col[4].loc    = DOWN;      col[4].c    = 0;
col[5].i    = ex  ; col[5].j    = ey-1; col[5].loc    = LEFT;      col[5].c    = 0;
col[6].i    = ex  ; col[6].j    = ey-1; col[6].loc    = RIGHT;     col[6].c    = 0;
col[7].i    = ex  ; col[7].j    = ey  ; col[7].loc    = LEFT;      col[7].c    = 0;
col[8].i    = ex  ; col[8].j    = ey  ; col[8].loc    = RIGHT;     col[8].c    = 0;
col[9].i    = ex  ; col[9].j    = ey-1; col[9].loc    = ELEMENT;   col[9].c    = 0;
col[10].i   = ex  ; col[10].j   = ey  ; col[10].loc   = ELEMENT;   col[10].c   = 0;

valA[0]     = -2.0 * (etaDown + etaUp) / (hy*hy) - (etaLeft + etaRight) / (hx*hx);
valA[1]     = 2.0 * etaDown / (hy*hy);
valA[2]     = 2.0 * etaUp / (hy*hy);
valA[3]     = etaLeft / (hx*hx);
valA[4]     = etaRight / (hx*hx);
valA[5]     = etaLeft / (hx*hy);
valA[6]     = - etaRight / (hx*hy);
valA[7]     = etaRight / (hx*hy);
valA[8]     = - etaRight / (hx*hy);
valA[9]     = ctx->Kcont / hy;
valA[10]    = -ctx->Kcont / hy;
ierr = DMStagMatSetValuesStencil(dmSol,A,1,&row,11,col,valA,INSERT_VALUES);CHKERRQ(ierr);
ierr = DMStagVecSetValuesStencil(dmSol,rhs,1,&row,&valRhs,INSERT_VALUES);CHKERRQ(ierr);
```

(Use Computer Modern - this part cut off below)