## Initialize Space

- First we need to get all triangles
  - glue::Phase omega = glue::make\_phase(...);
- Next we must allocate space for the discrete FEM element matrix array
  - unsigned int T = omega.m\_triangles.size();
  - std::vector<util::Block3x3Tensor2> Es;
  - Es.resize(T);

## Compute Element Matrix Array

- Next we compute the element matrices and fill them into the array
- for(unsigned int t = 0; t < T; ++t)</li>
- {
- Es[t].m\_blocks[0][0] = ... compute E\_ii....;
- Es[t].m\_blocks[0][1] = ... compute E\_ij....
- •
- Es[t].m\_blocks[2][2] = ... compute E\_kk....
- •