# Minutes for 2018 Dec 2

Progress in the past week

* 2D Abaqus model running
* 3D Abaqus model running
  + Will modify the edges so the whole load isn’t unrealistically concentrated
* Programming
  + Still need a 2D mesh (will start with the 2 part, flange and gasket, no bolt or bolt hole) CK is wrapping it up
  + Progress has been good on the programming
  + Will model the bolt head load with the area of the bolt head that overlaps with the flange

Final Report things that we need to do

* Abstract will be last
* Keyworks will be required
* Intro (done, Mike did it)
* Summary of FEM (CK writing these sections)
  + Our choices that we made in the FEM
  + 2.1 Geometry
    - Can discuss changing the change to adding a fillet
  + 2.2 Material Data
    - A study on the sealing performance of bolted flange joints with gaskets using finite element analysis – ScienceDirect.pdf
  + 2.3 Meshing
  + 2.4 Boundary Conditions & Loads
  + 2.5 Assumptions and limits (Mike with help)
    - 20,000 nodes
* Brian writing the Abaqus 3D results
* Mike writing up the Abaqus 2D results
  + But working a lot with Bijoy and Sam with
* Sam is writing the part on the group-made FEM solver (both FEM summary and some of the results)
* 2 column format (Mike sending it out)
* Bijoy will write the conclusion
* DON’T FORGET REFERENCES AS YOU WRITE YOUR SECTIONS
* Goal to get a draft of each section Tuesday evening (Wednesday morning for Bijoy)

Will have meeting at 5:30 CST on Wednesday to discuss where we are.