1. Introduction
   1. Background on diagnostic ultrasound
   2. Types of DUS bioeffects
   3. The current state of DUS bioeffects
   4. Overview of this dissertation
2. Theoretical microbubble dynamics at capillary breaching thresholds
   1. Background and Introduction
   2. Materials and methods
      1. Experimental setup
      2. Bubble dynamics model
   3. Results and discussion
   4. Conclusions
3. Diagnostic Ultrasound-induced Lung hemorrhage
   1. Background and introduction
   2. Model problem and numerical methods
   3. Results and discussion
      1. Viscous stress
      2. Elastic stress
      3. Interface Strain
   4. Conclusions
4. Acoustically driven air-water interfaces
   1. Background and introduction
   2. Model problem
   3. Results, analysis, and discussion
      1. Interface perturbation amplitude
      2. Vorticity / circulation dynamics
   4. Conclusions
      1. Acoustically generated baroclinic vorticity can drive gas-liquid interface deformations
5. Conclusions
   1. Computational modelling is useful for investigating the physics underlying DUS bioeffects
   2. Acoustically driven vorticity may be driving lung alveolar deformation and hemorrhage

Other parts: Validation of the code?

Appendices / other topics:

1. Area statistics?
2. Code / model / assumptions validation
   1. Delta vs reflection coefficient
   2. Reflections from the walls
   3. Convergence
   4. Discuss that verification of code goes into the introduction