Development of a Doppler Ultrasound Simulation Environment Using Field II

- The motivation of this work is to guide detection of potentially catastrophic post-operative blood clots. This project involves simulating clinical flow systems to aid in ultrasound-based methods of detecting thromboses.

- **What Students Will Do:**
  - Learn Field II ultrasound simulation software
  - Develop test environments to represent various anatomies
  - Model appearance of Sonavex's EchoMark fiducial implant
  - Opportunity to validate results with phantom and/or animal data using ultrasound scanner

- **Deliverables:**
  - Measure flow rates in healthy and clotted models
  - Create test environments

- **Size group:** 2-3

- **Skills:** Matlab, fundamental interest in or experience with ultrasound

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