Automatic segmentation and 3D visualization of MR images of pelvic floor (*Poster Session*)

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Background:

- Pelvic floor disorders affect nearly 1 in 4 women in the US. Most common surgical repair procedures of pelvic floor include placement of synthetic implants.
- Due to surgical complications, these implants may have to be removed at a later time. However, these implants have poor visibility in MRI and US.

Goals:

- Automatically segment MR images of important pelvic organs and implants.
- Develop a 3D visualization pipeline to assist radiologists and surgeons during surgical planning.

Figure: A sketch of a synthetic implant shown relative to organs of pelvic floor.

(from "Postoperative Imaging after Surgical Repair for Pelvic Floor Dysfunction" by G. Khatri et. al., Radiographics 36.4 (2016), pp. 1233-1256)
(a) Sagittal MRI slice with SC mesh shown near cyan arrow.

(b) 3D visualization of pelvic floor structure created from labeled data.