

Pathways to Clinical Needle Steering: Recent Advances and Future Applications

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Abstract

This full-day workshop will cover recent advances in robotic steering of flexible medical needles. Leading researchers in steerable needle design, modeling, motion planning, image guidance, and control will present their latest results. These researchers will also discuss their clinically-oriented systems-level engineering results and provide perspectives on a variety of emerging application areas for steerable needles. In addition to invited presentations from approximately twelve to fourteen leading researchers in the field, the workshop will include a poster session to provide a venue for a broad spectrum of students, postdoctoral fellows, and other researchers to present and discuss their work. The workshop will also include an interactive discussion led by the panel of invited presenters, with the aim of cross-pollination of ideas, accelerating progress toward the many exciting clinical advancements that steerable needle technology is on the cusp of enabling.