

Proton Workshop at Saturday Morning (01/26/2019):

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This interactive workshop consists of seven modules designed to fully immerse the user into the entire workflow of the Proton treatment from CT Simulation through Treatment Planning, Quality Assurance, and Treatment Delivery. The treatment sites focused on in all areas of the process will include Breast, Prostate, Head and Neck, CNS Brain, and Crainiospinal irradiation. Each module is one hour long, and each attendee can select four modules that they are most interested in participating.

- Module 1 (CT simulation and immobilization)
 - Demo in a CT simulation room on how to immobilize patient during CT simulation for breast, prostate, H&N, brain, and craniospinal cancers.
 - Experienced faculty to share their experience on how to reduce uncertainty in patient CT simulation and immobilization.
- Module 2-5 (Treatment planning and plan evaluations)
 - Module is based on representative cases for each clinical scenario in breast, prostate, H&N and CNS cancers. Demo in a treatment planning system.
 - Module will cover planning related topics: margin expansions, beam angle selections, optimization technique (SFO/MFO/IFSO, robust optimization), challenges in the planning process (e.g. which target is always hard to spare), plan robustness and LET evaluation, verification CT, what proton PBS plan can usually achieve for the specific site, what is the most dosimetric benefits of PBS as compared to IMRT or proton passive scattering.
- Module 6 (IGRT and treatment delivery)
 - Phantom based IGRT and treatment delivery demo for breast, prostate, H&N and CNS cancers in proton treatment gantries.
 - Experienced faculty to share their experience on how to setup these patients and reduce uncertainties during patient treatment.
- Module 7 (Comprehensive QA)
 - QA demo in proton treatment gantries
 - Very fast and accurate daily QA that only takes 10 minutes
 - Comprehensive monthly QA for proton range, spot position and spot sizes
 - Highly efficient patient specific QA by extensive automation