

Note that this is a sample of lecture topics presented in a given year. Lectures may vary slightly by year, and we are constantly updating the lecture series.

Summer Boot Camp

Introduction to angiography and cerebrovascular anatomy
Neuroradiology protocols
Maxillofacial trauma
Non-traumatic neurologic and MR emergencies
MR safety, including Pacemakers and ICDs
Vascular emergencies of the neck and skull base
Brain trauma
Spine trauma
CT perfusion in stroke: Theory and practice
Nonvascular head and neck emergencies

Brain tumor imaging

DTI for surgical planning
Brain neoplasms
Tumor mimics
ASL imaging of brain neoplasms
Radiation therapy for CNS neoplasms
Radiophenotypes
Chemo/immunotherapy for CNS neoplasms
Functional MRI
WHO brain tumor classification
Postoperative imaging

Vascular/stroke imaging

Cerebrovascular anatomy 1
Cerebrovascular anatomy 2
Cerebrovascular anatomy 3
Imaging of acute stroke
Perfusion imaging in vascular disease, a case-based review
Susceptibility weighted imaging
Vascular malformations of the brain
Vessel wall imaging
Current practice in endovascular management of acute stroke
Spinal Vascular anatomy
Aneurysms and aneurysm intervention

Head/neck

Cervical lymph node stations and pathology
Cystic neck masses
Thyroid and Parathyroid
Vascular soft tissue masses of the neck
Advanced MR imaging in HNSCC
Salivary glands
Imaging of the TMJ
Robotic surgery in the head and neck
PET/CT of head and neck malignancies
Skull base imaging
Sellar and suprasellar pathology

Spine and nerve imaging

Spinal anatomy and nomenclature
Spine neoplasms and vascular abnormalities
Spine interventions
Postoperative spine
Osseous lesions of the spine
Management of CSF hypotension
Lumbosacral plexus imaging
Peripheral nerve ultrasound
Peripheral neurography

Pediatric neuroradiology

Pediatric stroke
Pediatric head and neck emergencies
Vascular lesions of the skull base
Hypoxic/ischemic injury
Fetal Imaging

Miscellaneous topics

MRI and Movement Disorders
Imaging of epilepsy
Demyelinating disease
Treatment related complications in MS

Noninterpretive skills

Quality and Safety
Mentoring
Research in the neuroradiology division
Quality improvement and safety project design
Biostatistics
Natural language processing with deep learning
Academic writing
Wellness in medicine

Physics

Radiation dose reduction - CT
Neuroradiology physics, artifacts and safety
MRI physics - Contrast agents
Additional series of physics topics

Hands on/workshops

Image segmentation workshop
Spine interventions simulation workshop
Vascular interventions simulation workshop
3D post-processing