AAPM 54th Annual Meeting Program
Charlotte, North Carolina

Key to Track Color Codes							
Professional	Therapy Education	Therapy Scientific	Joint Imaging-Therapy	Imaging Scientific	Imaging Education	Practical Medical Physics	Other

Sunday, July 29

A 9:30 - 11:00	Education Council Symposium **Medical Physics and Technology Education for Society: Adults, Teenagers, and Elementary Students** *Moderator: M Fox* P Sprawls, M Fox Ballroom B	AAPM **Medical Physics Student Meeting** Room 211
B 11:00 - 12:30	Professional Council Symposium **Practice Standards - Driving Forces, Benefits, Potential Pitfalls** *Moderator: P Halvorsen* P Halvorsen, R Pizzutiello, M Pacella, J Hevezi Ballroom B	

1:00 Exhibit Hall Opens
Refreshment Break in Exhibit Hall

	Room 211	Room 213AB	Ballroom CD	Ballroom B	Ballroom A	Room 213CD	Room 217BCD	Room 217A	Room 218
C 1:30 - 2:15	Therapy Short Oral Session **Treatment Planning for External Beam Therapy** *J Burmeister*	Therapy Short Oral Session **Clinical Dose Calculation Tools and Informatics** *J Seuntjens*	Therapy Short Oral Session **Dosimetry: Safety Procedures** *E Klein*	Therapy Short Oral Session **Biological Modeling and Outcome Modeling/Assessment** *J Deasy*	Joint Imaging-Therapy Short Oral Session **Motion Assessment and Management: CT, CBCT, & Fluoroscopy** *W D'Souza*	Joint Imaging-Therapy Short Oral Session **IGRT: CBCT and Planar X-Ray** *D Jaffray*	Imaging Short Oral Session **CT Imaging and QA** *E Samei*	Imaging Short Oral Session **Radiation Dose in X-Ray and CT** *K Kanal*	Imaging Short Oral Session **X-Ray and CT Imaging** C Cagnon
D 2:15 - 3:00	Therapy Short Oral Session **Stereotactic Radiation Therapy** *S Dieterich*	Therapy Short Oral Session **Brachytherapy** *O Craciunescu*	Therapy Short Oral Session **Off-line Devices and Detectors for Dosimetry** *J Cygler*	Joint Imaging-Therapy Short Oral Session **Therapy Assessment** *M Martel*	Joint Imaging-Therapy Short Oral Session **Motion Assessment and Management: Novel Modalities** *L Xing*	Joint Imaging-Therapy Short Oral Session **IGRT: Novel Modalities** *P Balter*	Imaging Short Oral Session **CT Topics** *E Angel*	Imaging Short Oral Session **X-Ray, Nuclear, and PET Imaging** *A Kirov*	Imaging Short Oral Session **MRI, X-Ray and Optical Imaging** *M McNitt-Gray*

E 3:00 - 6:00	**EXHIBIT HALL** **Refreshment Break, Posters, and Technical Exhibits** 3:00 - 3:30 **Refreshment Break in the Exhibit Hall** 3:30 - 4:00 **Best in Physics** Poster Theatres and Discussion in the Exhibit Hall	3:00 - 6:00 **GENERAL POSTER DISCUSSION** Education Imaging Joint Imaging- Therapy Therapy (Exhibit Hall OPEN until 6:00 pm)
F 4:00 - 6:00	4:00 - 6:00 **John R. Cameron Young Investigator Symposium** *E Podgorsak, D Frey* Ballroom B	

Monday, July 30

	Room 211	Room 213AB	Ballroom CD	Ballroom B	Ballroom A	Room 213CD	Room 217BCD	Room 217A	Room 218
A 8:00 - 8:55	INTERACTIVE SESSION Therapy Educational Course **Volumetric Modulated Arc Therapy (VMAT)** D Shepard R Popple	Therapy Scientific Session **Treatment Delivery and Verification: 3D Techniques** *J Palta* *Y Xiao*	SAM SESSION Therapy Educational Course **Unsettled Issues in the Radiobiology of Emergent Technology: Hypofractionation and PET-Guided Treatment Planning** M Joiner R Jeraj S Bentzen	Therapy Symposium **Implementation and Precautions for Unflattened Beam Radiotherapy** H Chen J Ting J Bayouth C Liu	INTERACTIVE SESSION Imaging Symposium **State of the Art in Quantitative Imaging in CT, PET and MRI** M McNitt-Gray P Kinahan E Jackson	Practical Medical Physics **CTQC Testing** D Pfeiffer	SAM SESSION Imaging Educational Course **Nuclear Medicine 1 & 2** L Williams S Kappadath	Practical Medical Physics **Radiation Therapy Contouring** J Wu I Hsu	Imaging Educational Course **Computed Tomography 1 Translating Protocols Between CT Scanner Manufacturer and Model** R Pizzutiello
B 9:00 - 9:55	INTERACTIVE SESSION Therapy Educational Course **Linac-Based IMRT/VMAT Commissioning and QA Program Development** T Pawlicki G Kim D Cao								Imaging Educational Course **Computed Tomography 2 Managing Pediatric CT Patient Doses** K Strauss

10:00 - 10:30 Coffee Break in Exhibit Hall

C 10:30 - 12:30	President's Symposium **The Future of Physics Research in Cancer Therapy and Imaging** *Moderators: G Ezzell, H Paganetti, T Bortfeld* R Jeraj, D Wirtz, K Andriole Ballroom CD

12:30 - 2:00 Lunch Break + Visit the Technical Exhibits

	Room 211	Room 213AB	Ballroom CD	Ballroom B	Ballroom A	Room 213CD	Room 217BCD	Room 217A	Room 218
D 2:00 - 2:55	Professional Symposium **Medical Physics Practice Guidelines** P Halvorsen M Chan J Fontenot	Professional Symposium **Economic Topics** J Hevezi	Therapy Educational Course **Overview of Clinical Dosimetry and Quality Assurance in Proton Therapy** O Zeidan	Therapy Scientific Session **Dosimetry: Safety Procedures** *D Followill* *K Langen*	Imaging Symposium **Limits of Dose Reduction in CT: Where are They and How Will We Know When We Get There?** M McNitt-Gray F Noo J Fessler E Samei	Imaging Symposium **Advanced Angiographic Imaging Techniques** S Riederer O Wieben M Griswold C Mistretta	SAM SESSION Joint Imaging-Therapy Symposium **Personalizing Medicine: Adapting to the Individual** K Brock J Balter P Kupelian M Joiner	Imaging Educational Course **Radiography/Fluoroscopy 1 Optimizing Dose In the Interventional Radiology Suite: Do You Really Need That Image Quality?** R Dixon	Imaging Educational Course **Ultrasound 1 & 2 Ultrasound Image Quality Measurements and Performance Assessment** P Carson E Madsen N Hangiandreou
E 3:00 - 3:50	Professional Symposium **ABR 2014: Trained for Competence** E Klein G Ibbott J Bayouth		Therapy Educational Course **Proton Treatment Planning Issues** B Winey J Adams X Zhu S Both					Imaging Educational Course **Mammography 1 Contrast Enhanced Spectral Mammography** M Yaffe	

3:50 - 4:30 Refreshment Break in Exhibit Hall

	Room 211	Room 213AB	Ballroom CD	Ballroom B	Ballroom A	Room 213CD	Room 217BCD	Room 217A	Room 218
F 4:30 - 5:15	Professional Symposium **Methods in Completing Performance Quality Improvement (PQI)** J Johnson K Brown T Pawlicki G Ibbott	Therapy Short Oral Session **Treatment Delivery and Verification: 3D Techniques** *J Palta* *Y Xiao*	***Session is 4:30 - 5:45*** Therapy Educational Course **SBRT: Updates on QA and Safety Considerations** P Read J Perks	Therapy Short Oral Session **Dose Calculation: Monte Carlo** *I Chetty*	Joint Image-Therapy Short Oral Session **Image Registration** *K Brock*	Imaging Scientific Session **General Dosimetry** *M Martin* *C Lee*	INTERACTIVE SESSION Imaging Symposium **Assessment of Image Quality In The New CT** J Siewerdsen J Fessler K Myers	Imaging Educational Course **Magnetic Resonance 1 Establishing a 4D-MRI Program for Imaging Moving Tumors** J Cai Y Hu E Tryggestad P Parikh	Practical Medical Physics **Overview of the ACR/ASTRO and ACRO Accreditation Programs** P Conway T Miin M Kuettel C Sibata
G 5:15 - 6:00		Therapy Short Oral Session **Treatment Delivery and Verification: Intensity-modulated Techniques** *P Keall*		Professional Symposium **Rosalyn Yalow: Contributions and Legacy, A Memorial Session** J Humm S Goldsmith	Joint Image-Therapy Short Oral Session **Image Segmentation and Visualization** *M Kessler*				

6:30 - 8:00 AAPM Awards Ceremony (Ballroom CD) and 8:00 - 9:00 Reception (Ballroom Foyer)

Tuesday, July 31

	Room 211	Room 213AB	Ballroom CD	Ballroom B	Ballroom A	Room 213CD	Room 217BCD	Room 217A	Room 218
A 8:00 - 8:55	SAM SESSION Imaging Educational Course **Magnetic Resonance 2 & 3** R Price R Bell	Therapy Educational Course **Dosimetry for HDR Brachytherapy - Present Status and Future Direction** J Seuntjens L DeWerd M Rivard	SAM SESSION Therapy Educational Course **Imaging and Image Processing for Adaptive Radiotherapy** M Kessler J Siewerdsen J Sonke	Therapy Scientific Session **Off-line Devices and Detectors for Dosimetry I** *Z Chang* *L Archambault*	Joint Imaging-Therapy Scientific Session **IGRT: Novel Modalities** *P Balter*	Imaging Scientific Session **Cone Beam CT 1** *R Fahrig* *G Chen*	SAM SESSION Imaging Educational Course **Computed Tomography 3 & 4** D Bakalyar F Ranallo	Imaging Educational Course **Radiography/Fluoroscopy 2 & 3 Chest/Body Tomosynthesis** M Flynn J Dobbins B Li J Sabol	Imaging Scientific Session **Radiography/Fluoroscopy** *S Armato* *B Schueler*
B 9:00 - 9:55		Therapy Educational Course **Quality and Safety in Modern Brachytherapy** J Reiff D Schenderberg S Richardson							

10:00 - 10:30 Coffee Break in Exhibit Hall

	Room 211	Room 213AB	Ballroom CD	Ballroom B	Ballroom A	Room 213CD	Room 217BCD	Room 217A	Room 218
C 10:30 - 11:25	Professional Symposium **Practice Management Training** P Halvorsen J Limmer B Clarke	Professional Symposium **ACR Accreditation: Radiation Therapy** I Das P Conway	SAM SESSION Therapy Educational Course **Initiating an IGRT Program** J Sonke J Kruse	Therapy Scientific Session **Basic Radiation Biology and Animal Studies** *C Ma* *R Berbeco*	Therapy Symposium **Predicting Complication Probabilities Beyond the Dose-Volume Histogram** J Deasy F Buettner L Mell	Joint Imaging-Therapy Scientific Session **Motion Assessment and Management: CBCT** *P Keall* *J Moran*	INTERACTIVE SESSION Imaging Symposium **Where Molecular Imaging is Taking Us** W Weber P Kinahan R Jeraj	Imaging Educational Course **Dose/Risk 1 Implementation of The Joint Commission's Sentinel Event Alert #47** R Pizzutiello	Practical Medical Physics **Effective Medical Physics Education** P Sprawls G Ibbott J Burmeister C Coffey M Salehpour
D 11:30 - 12:30		Professional Symposium **How You Can Be the Speaker and Communicator Everyone Wants You To Be** J Collins						Imaging Educational Course **Computed Tomography 5 CTDI and Patient Dose: A European Perspective** W Kalender	

12:30 - 2:00 Lunch Break + Visit the Technical Exhibits

	Room 211	Room 213AB	Ballroom CD	Ballroom B	Ballroom A	Room 213CD	Room 217BCD	Room 217A	Room 218
E 2:00 - 2:55	Professional Symposium **Establishing Multidisciplinary Research As a Medical Physicist** B Fraass E Ford L Xing S Chang	Professional Symposium **JMPSLC Update** R Pizzutiello D Pfeiffer	Therapy Educational Course **The Emerging Role of Image-Guidance for Breast Radiotherapy** H Al-Hallaq J Sonke	Therapy Scientific Session **Stereotactic Radiation Therapy** *P Petti* *B Winey*	Joint Imaging-Therapy Scientific session **IGRT: CBCT and X-Ray** *D Hristov* *J Burmeister*	Joint Imaging-Therapy Symposium **Image Guided Adaptive Brachytherapy (IGABT) for Cervical Cancer** J Cai O Craciunescu C Kirisits A de Leeuw	Imaging Scientific Session **In Memorium of Leonard Stanton Breast Imaging** *H Chan* *I Sechopolous*	Imaging Educational Course **Informatics 1 DICOM and the QMP, Assessment of Color Displays** D Peck M Flynn	Practical Medical Physics **PET/CT QA and Acceptance Testing** M Dahlbom O Mawlawi
F 3:00 - 3:50		Professional Symposium **Workforce Survey Update** M Mills E Nickoloff	Therapy Educational Course **Tolerance Levels and Methodologies for IMRT Verification QA** M Miften A Olch D Low					Imaging Educational Course **Informatics 2 Dose Monitoring** T Cook O Christianson	

3:50 - 4:30 Refreshment Break in Exhibit Hall

	Room 211	Room 213AB	Ballroom CD	Ballroom B	Ballroom A	Room 213CD	Room 217BCD	Room 217A	Room 218
G 4:30 - 6:00	Professional Symposium **New Member Symposium** M Mills M Woodward	Professional Symposium **Controlling Your Stress and Your Stuff** D Jordan K Crenshaw	INTERACTIVE SESSION Therapy Symposium **Will Proton Therapy Gradually Replace Photon Therapy?** R Maughan H Paganetti F Van den heuvel	Therapy Scientific Session **Treatment Plan Optimization** *J Siebers* *H Keller*	Joint Imaging-Therapy Scientific Session **Motion Assessment and Management: Novel Modalities** *B Fallone* *L Cervino*	Joint Imaging-Therapy Symposium **Risks and Realities of Radiation Dose in Medical Imaging** W Hendee C McCollough M O'Connor	Imaging Scientific Session **CT Dosimetry 1** *D Bakalyar* *T Mills*	Imaging Scientific Session **MRI 1** *E Jackson* *K Farahani*	Practical Medical Physics **Accidents and Misadministration** R Foster B Libby

6:30 - 10:00 AAPM Night Out

Wednesday, August 1

	Room 211	Room 213AB	Ballroom CD	Ballroom B	Ballroom A	Room 213CD	Room 217BCD	Room 217A	Room 218
A 8:00 - 8:55	Professional Symposium **International Medical Physics Symposium** Y Pipman A Shulman M do Carmo Lopes R Wu	Therapy Educational Course **Radiation-Related Second Cancers** S Kry	SAM SESSION Therapy Educational Course **Stereotactic Radiosurgery: State of the Art Technology and Implementation** K Yenice P Petti S Dieterich T Solberg	Therapy Scientific Session **Brachytherapy** *M Rivard* *J Pouliot*	Joint Imaging-Therapy Symposium **Real-time Volumetric Soft Tissues Guidance Technologies for External Beam Radiotherapy** B Fallone S Mutic F Verhaegen D Hristov	Imaging Educational Course **Nuclear Medicine 3 Molecular imaging of the Breast** M O'Connor	INTERACTIVE SESSION Professional Symposium **Medical Physics Ethics in Action** W Hendee P Halvorsen N Ozturk R Fahrig D Frey G Starkschall	Joint Imaging-Therapy Scientific Session **Therapy Assessment** *P Kinahan* *K Brock*	Imaging Scientific Session **CT Dosimetry 2** *D Cody* *M Supanich*
B 9:00 - 9:55		Therapy Educational Course **Source Modeling and Beam Commissioning for Clinical Monte Carlo** C Ma I Chetty B Faddegon				Imaging Educational Course **Radiography/Fluoroscopy 4 Fluoro in the OR** M Rehani S Balter M Mahesh			

10:00 - 10:30 Coffee Break in Exhibit Hall

	Room 211	Room 213AB	Ballroom CD	Ballroom B	Ballroom A	Room 213CD	Room 217BCD	Room 217A	Room 218
C 10:30 - 11:25	Professional Symposium **International Medical Physics Symposium** M Rehani A Boye Faye F Nuesslin	Professional Symposium **Preparing for the ABR Therapy Exam** S Becker B Chinsky R Flynn	SAM SESSION Therapy Educational Symposium **Safety Initiatives in Radiation Therapy Physics** T Pawlicki S Huq S Mutic D Low	Therapy Scientific Session **Dose Calculation: Monte Carlo** *H Paganetti* *I Popescu*	Joint Imaging-Therapy Scientific Session **The John S. Laughlin - Science Council Research Symposium Imaging for Therapy Assessment** *P Kinahan* *R Jeraj*	Therapy Symposium **Decision Support for Radiation Therapy** F Yin Y Ge Y Xiao Q Wu	Imaging Scientific Session **Multimodal/Molecular/ Nuclear/Optical** *M Williams* *O Mawlawi*	Imaging Educational Course **Dose/Risk 2 & 3 A Critical Analysis of Radiation Risks in Diagnostic Radiology** C McCollough M O'Connor D Vetter L Wagner	Imaging Educational Course **Ultrasound 3 Ultrasound Contrast Agents - Efficacy and Safety** P Dayton J Streeter
D 11:30 - 12:30		Professional Symposium **Preparing for the ABR Diagnostic Exam** R Pennell M Supanich S Leng							Imaging Educational Course **Ultrasound 4 Advance Imaging Applications in Ultrasound** K Thomenius

12:30 - 2:00 Lunch Break + Visit the Technical Exhibits
NOTE: Exhibits Close at 2:00 pm

	Room 211	Room 213AB	Ballroom CD	Ballroom B	Ballroom A	Room 213CD	Room 217BCD	Room 217A	Room 218
E 2:00 - 2:55	Professional Symposium **Medical Physics in Federal and State Governments** D Winter T Mills S Keith	**Please note this timeslot is 2:00 pm - 6:00 pm** Professional Symposium **AAPM-SEFM-AMPR** E Ford, D Yan, C Yu, A Medina, L Brualla Gonzalez, J Rosella Ferrando, A Zvereva, P Kazantsev, T Krylova, P Bulychkin, T Willoughby, D Romanov, J Seibert, J Bourland ↓ ↓	Therapy Educational Course **SBRT Treatment Planning Considerations** L Hong	Therapy Scientific Session **Clinical Dose Calculation Tools and Informatics** *S Mutic* *B Fraass*	INTERACTIVE SESSION Joint Imaging-Therapy Symposium **Treatment Assessment of Radiation Therapy Using MR Functional Imaging** Z Chang Y Cao M Milosevic	Joint Imaging-Therapy Scientific Session **Image Registration, Segmentation, and Visualization** *L Xing* *G Sharp*	SAM SESSION Imaging Educational Course **Mammography 2 & 3 Breast Imaging** J Dobbins K Chakrabarti E Berns	Imaging Symposium **CAD: Can We Get From Promise to Clinic?** Z Huo B Sahiner N Petrick R Summers	Practical Medical Physics **Writing and Reviewing Papers in Medical Physics** W Hendee P Slattery D Rogers A Karellas
F 3:00 - 3:50	Professional Symposium **The Evolving Landscape of Scientific Publishing** B Curran C Marshall W Hendee		INTERACTIVE SESSION Therapy Educational Course **Transitioning from 3D IMRT to 4D IMRT and Role of Image-Guidance** P Balter P Xia						

3:50 - 4:30 Refreshment Break - Ballroom Foyer
(Exhibits close at 2pm)

	Room 211	Room 213AB	Ballroom CD	Ballroom B	Ballroom A	Room 213CD	Room 217BCD	Room 217A	Room 218
G 4:30 - 6:00	History Symposium **Historical Aspects of Cross-sectional Imaging** L Rothenberg G Clarke J Zagzebski	**WE-E-213AB** Professional Symposium **AAPM-SEFM-AMPR**	Therapy Scientific Session **Treatment Planning for External Beam Therapy** *R Mohan* *B Faddegon*	Therapy Scientific Session **On-line Devices and Detectors for Dosimetry** *J Van Dyk* *S Beddar*	Education Session **Innovations in Medical Physics Education** *J Burmeister* *S Avery*	Joint Imaging-Therapy Scientific Session **Motion Assessment and Management: Novel Modalities** *E Ford* *D Ruan*	Imaging Scientific Session **Cone Beam CT 2** *J Siewerdsen* *J Boone*	Imaging Scientific Session **MRI 2** *P Sprawls* *D Pickens*	Practical Medical Physics **Implanted Cardiac Devices** D Mihailidis C Reft C Hurkmans

6:15 - 7:30 AAPM Annual Business Meeting / Town Hall Meeting - AAPM Board of Director Members Ballroom B

Thursday, August 2

	Room 211	Room 213AB	Ballroom CD	Ballroom B	Ballroom A	Room 213CD	Room 217BCD	Room 217A	Room 218
A 8:00 - 8:55	INTERACTIVE SESSION Therapy Educational Course **Deformable Registration in the Clinic: From Commissioning to Advanced Applications** E Schreibmann J Kim	Therapy Scientific Session **Treatment Plan Optimization** *J Deasy* *A Trofimov*	SAM SESSION Therapy Educational Course **Electron Radiotherapy: Past, Present, and Future** J Antolak K Hogstrom	Therapy Symposium **Biophysical Modeling for High-Dose Hypofractionated Radiotherapy** D Brenner M Guerrero J Deasy M Dewhirst	Joint Imaging-Therapy Scientific Session **Uncertainty Assessment** *J Sonke* *L Court*	Imaging Scientific Session **Novel Imaging Sources/Modalities** *A Karellas* *M Goodsitt*	Imaging Scientific Session **Breast Imaging/Spectral CT** *S Molloi* *L Yu*	Imaging Educational Course **Nuclear Medicine 4 Image Gently: Go with the Guidelines** F Fahey	Imaging Educational Course **Magnetic Resonance 4 Clinical Evaluation of Image Quality** J Ma
B 9:00 - 9:55	INTERACTIVE SESSION Therapy Educational Course **Imaging Dose to Patients and Inclusion of Imaging Dose in Radiation Therapy Treatment Planning** P Alaei G Ding							Imaging Educational Course **Nuclear Medicine 5 Release of Radioactive Patients** R Wendt	Imaging Educational Course **Computed Tomography 6 Iterative and Model-Based Reconstruction** J Stayman

10:00 - 10:30 Coffee Break - Ballroom Foyer

	Room 211	Room 213AB	Ballroom CD	Ballroom B	Ballroom A	Room 213CD	Room 217BCD	Room 217A	Room 218
C 10:30 - 11:25	Professional Symposium **How To Be A Journal Referee** B Thomadsen J Boone C Orton G Starkshall	Therapy Scientific Session **Biological Modeling and Outcome Modeling/Assessment** *M Miften* *M Martel*	INTERACTIVE SESSION Therapy Educational Course **Dosimetry of Small Fields** I Das T Mackie	Therapy Scientific Session **Treatment Delivery and Verification: Intensity-modulated Techniques** *P Alaei* *D Yan*	Joint Imaging-Therapy Scientific Session **IGRT: CBCT and Planar X-Ray** *T Solberg* *R Berbeco*	Therapy Symposium **Accuracy of Proton Dose Computation Algorithms and Need for Improvement** R Mohan H Paganetti U Oelfke M Soukup	Imaging Symposium **Advanced Imaging Applications and Contrast Agents in Ultrasound Imaging** K Nightengale C Deng	Imaging Educational Course **Dose/Risk 4 Update on Image Wisely** S Bushong	Practical Medical Physics **Multivendor SBRT/IGRT** D Mihailidis O Gayou T Djemil
D 11:30 - 12:30			Therapy Educational Course **TG-51 Review and Updates** D Rogers M McEwen					Imaging Educational Course **Magnetic Resonance 5 New ACR MRI Safety Guidelines** E Kanal	

12:30 - 1:00 Box Lunch - Ballroom Foyer

	Room 211	Room 213AB	Ballroom CD	Ballroom B	Ballroom A	Room 213CD	Room 217BCD	Room 217A	Room 218
E 1:00 - 1:55	Professional Symposium **Economics of Light Ion Teletherapy** M Moyers	Therapy Educational Course **Review of Radiobiological Principles of Radiotherapy and Radiation Protection** C Orton C Borrás	Therapy Symposium **Automatic Planning In Radiation Therapy** D Craft T McNutt X Zhang P Kupelian	Therapy Scientific Session **Off-line Devices and Detectors for Dosimetry II** *I Das* *B Arjomandy*	Joint Imaging-Therapy Scientific Session **IGRT: MR, PET, and Novel Modalities** *T Stanescu* *S Mutic*	Joint Imaging-Therapy Symposium **Advances in Image-Guided Oncologic Surgery** K Farahani J Siewerdsen N Agar N Ramanujam	Imaging Scientific Session **CT Image Quality** *K Boedeker* *J Hsieh*	Imaging Educational Course **Mammography 4 "MicroDose" Mammography: Physical Principles, Testing and QC** M Danielsson	Joint Imaging-therapy Scientific Session **Innovations In Imaging for Therapy** *K Brock* *I El Naqa*
F 2:00 - 2:50	Therapy Scientific Session **Dose calculation: Non-Monte Carlo** *S Jiang* *H Paganetti*	Therapy Educational Course **TG166: The Use and QA of Biologically Related Models for Treatment Planning** A Li E Yorke						Imaging Educational Course **Informatics 3 Informatics Meets Quality Improvement: Informatics Driven Quality Initiatives - Using the Tools of Six Sigma** W Pavlicek	

CLOSE OF MEETING
See you next year in Indianapolis!
August 4 - 8, 2013