

Spiral and Multislice CT: Physical Principles and Medical Physics Responsibilities

SEAAPM Spring Symposium

Gary Barnes, Ph.D. and Jon Trueblood, Ph.D., Co-Directors

March 16-17, 2000

*Grove Park Inn Resort
Asheville, North Carolina*

Sponsored by
ADAC Laboratories

Wednesday, March 15, 2000

6:00 PM - 8:00 PM

Symposium Registration & Ice Breaker

Thursday, March 16, 2000

7:00 AM	Registration & Continental Breakfast	
8:15 AM	Welcome & Introduction	<i>Jon Trueblood</i>
	Symposium Session I CT Principles and Evolution	
8:30AM-9:00AM	CT Principles and Early Developments 1970-1989	<i>Gary T. Barnes</i>
9:00AM-9:30AM	Spiral and Multi-Slice CT Principles and Development 1990-2000	<i>Willi A. Kalender</i>
9:30AM-10:00AM	CT Image Reconstruction Algorithms	<i>Marc Kachelriess</i>
10:00AM-10:30AM	Break sponsored by Siemens Oncology Care Systems, Inc.	
10:30AM-11:00AM	CT Image Quality: Theoretical Considerations	<i>David M. Gauntt</i>
11:00AM-11:30AM	Artifacts in Conventional, Helical, and Multi-Slice CT	<i>Neil Bromberg</i>
11:30AM-12:00PM	Panel Discussion	<i>Session Faculty</i>
12:00PM-1:30PM	Lunch Break	
	Symposium Session II Dosimetry and Performance Evaluation	
1:30PM-2:00PM	Conventional, Spiral, and Multi-Slice CT Dosimetry	<i>Cynthia McCollough</i>
2:00PM-2:30PM	CT Organ and Effective Doses	<i>Willi A. Kalender</i>
2:30PM-3:00PM	Multi-Slice CT Performance Assessment; Acceptance Testing and Routine Quality Control	<i>Frank E. Zink</i>
3:00PM-3:30PM	Break sponsored by Computerized Medical Systems Inc.	
	Session III Clinical and 3D Considerations	
3:30PM-4:15PM	Clinical Advantages of Multi-Slice CT	<i>J. Kevin Smith</i>
4:15PM-5:00PM	CT Angiography, 3D Imaging and Display Considerations	<i>Sandy Napel</i>
5:00PM-5:30PM	Panel Discussion	<i>Session Faculty</i>

Friday, March 17, 2000

7:00 AM - 8:00 AM	Continental Breakfast sponsored by Varian Oncology Systems	
	Session IV Medical Physics Practice Considerations	
8:00AM-8:30 AM	Multi-Slice CT Radiation Shielding Design: Implications of Increased Workload and Scatter Volumes	<i>Gary T. Barnes</i>
8:30AM-9:00AM	Measurement of Helical and Multi-Slice CT Slice Widths and Sensitivity Profiles	<i>David R. Pickens</i>
9:00AM-9:30AM	Multi-Slice CT Systems: A Critical Comparison of Scanner Specifications	<i>William J. Davros</i>
9:30AM-10:00AM	Helical and Multi-Slice CT in Radiation Oncology: CT Number Calibrations and Quality Assurance	<i>J. Daniel Bourland</i>
10:00AM-10:30AM	Break sponsored by MDS Nordion Therapy Systems	
	Session V Current and Future Developments	
10:30AM-11:00AM	CT Fluoroscopy: Clinical Uses and Dose Considerations	<i>Bryan R. Westerman</i>
11:00AM-12:00PM	Multi-Slice CT: Future Developments	<i>Marc Kachelriess</i>
12:00PM-12:30PM	Panel Discussion	<i>Session Faculty</i>