

**American Association of Physicists in Medicine**  
**Ohio River Valley Chapter**



**Program**

**March 4-5, 2011**  
**Cincinnati, OH**



# Ohio River Valley Chapter of the AAPM

## AAPM ORVC Spring 2011 Symposium Program

<b>Friday, Mar. 4<sup>th</sup> – Belle of Cincinnati (BB Riverboats)</b> <i>101 Riverboat Row, Newport, KY 41071 – (800) 261-8586</i>	
6:00 pm to 7:00 pm	<b>Riverboat Boarding</b>
7:00 pm	<b>Departure East on the Ohio River</b>
7:00 pm to 9:30 pm	<b>Dinner Cruise (Provided) &amp; Poster Sessions</b>
9:30 pm	<b>Return to Dock</b>
10:00 pm	<b>Adjournment</b>

### POSTER PRESENTATIONS (According to Corresponding Author):

**Dynamic gating window for compensation of baseline shift in respiratory gated radiation therapy**

*Eric W. Pepin, Ph.D. – Purdue University*

**In vivo imaging to monitor anti-angiogenesis and re-oxygenation on radio-sensitivity in pancreatic cancer xenografts**

*Ning Cao, M.S. – Purdue University*

**Implementation of feedback-guided voluntary breath hold gating for CBCT-based stereotactic body radiotherapy**

*Yong Peng, Ph.D. – Indiana University*

**Longitudinal craniofacial dysmorphology induced by prenatal alcohol exposure: a micro-CT study in C57BL/6J mice**

*Huisi Ai, M.S. – Purdue University*

**Overview of proton computed tomography**

*Kent J.D. Wong, M.S. – Purdue University*

**Quantifying radiation effects on intracerebral diffusivity: a pediatric case study of physiologic sequelae of radiation therapy**

*Brian Casto, B.S. – University of Cincinnati*

**Proton dose distribution with respiratory motion effects between scattering and uniform scanning proton beam**

*Qingya Zhao, Ph.D. – Midwest Proton Radiotherapy Institute*

**Using intensity modulated radiation therapy to perform total body irradiation for pediatric patients**

*Daniel Vade Bon Coeur, M.S. – Ohio State University*

**Radiation treatment failure detection for moving tumor with image guidance**

*Dinesh Jain, B.S. – Indiana University/Purdue University Indianapolis*

**Intrinsic characteristics study for optimal thickness of thin film CdTe under diagnostic x-ray beams**

*Xiance Jin, Ph.D. – University of Toledo*

**Investigating the effect of particle size on the enhancement of radiation dose due to gold nanoparticles**

*Nava R. Paudel, M.S. – University of Toledo*

**A novel device for delivering partial breast hyperthermia concurrent with partial breast irradiation**

*Todd A. White, M.S. – University of Toledo*

**Whole liver 31P metabolite mapping with 3D CSI**



# Ohio River Valley Chapter of the AAPM

Scott Jones, M.S. – Purdue University

## AAPM ORVC History

Minsong Cao, Ph.D., DABR – Indiana University (*President-Elect*)

## Dose-volume histogram quality assurance for linac-based treatment planning systems

Michael S. Gossman, M.S., DABR – Tri-State Regional Cancer Center (*President*)

<b>Saturday, Mar. 5<sup>th</sup> - Kingsgate Marriott Conference Ctr. at the Univ. of Cincinnati</b> 151 Goodman Drive, Cincinnati, OH 45219 – (888) 720-1299	
7:00 am to 8:00 am	<b>Vendor Exhibit Setup</b>
8:00 am to 8:30 am	<b>Continental Breakfast (Provided) / Vendor Exhibits</b>
8:30 am to 8:35 am	<b>Symposium Launch by AAPM ORVC President</b> <i>Michael S. Gossman, M.S., DABR – Tri-State Regional Cancer Center</i>
8:35 am to 8:45 am	<b>Opening Remarks by AAPM ORVC President-Elect</b> <i>Minsong Cao, Ph.D., DABR – Indiana University</i>
8:45 am to 10:00 am (Invited Speaker)	<b>James G. Kereiakes Keynote Lecture</b> <b>Keynote Address: “A review of Stereotactic Body Radiation Therapy (SBRT) Developments, Technology and Recommendations”</b> <i>Stanley H. Benedict, Ph.D., DABR, FAAPM</i> <i>University of Virginia Health Systems</i>
10:00 am to 10:15 am	<b>#1 - Error analysis of nonstandard HDR brachytherapy dosimetric techniques and its clinical implications</b> <i>Ahmad A. Amoush, M.S. – University of Cincinnati</i>
10:15 am to 10:30 am	<b>#2 - Dosimetric effects near implanted vascular access ports under external electron beam radiation</b> <i>David C. Segarra, M.S. – Wright State University</i>
10:30 am to 11:00 am	<b>Coffee Break (Provided) / Vendor Exhibits</b>
11:00 am to 11:15 am	<b>#3 - Towards understanding the uncertainty in range and dose in presence of high-Z materials in proton therapy</b> <i>Li Zhao, Ph.D. – Indiana University</i>
11:15 am to 11:30 am	<b>#4 - Measurement of low energy backscatter factors</b> <i>Christopher Mart, M.S. – University of Cincinnati</i>
11:30 am to 11:45 am	<b>#5 - Multi-leaf collimator for proton beam therapy: a double edge sword</b> <i>Vadim P. Moskvina, Ph.D. – Indiana University</i>
11:45 am to 12:00 pm	<b>#6 - The comparison of dose modification factors for two multi-lumen brachytherapy applicators used in partial breast irradiation</b> <i>Justin R. Sherman, B.S. – University of Toledo</i>
12:00 pm to 1:00 pm	<b>Lunch Break (Box Provided) / Vendor Exhibits</b>



# Ohio River Valley Chapter of the AAPM

1:00 am to 1:15 am	<b>#7 - Static and dynamic polynomial correlation of internal/external marker positions in radiotherapy</b> <i>Abby Besemer, B.S. - Indiana University/Purdue University Indianapolis</i>
1:15 am to 1:30 am	<b>#8 - Quality assurance utilizing 3D dose reconstruction for stereotactic lung radiotherapy</b> <i>James Durgin, M.S. – Ohio State University</i>
1:30 am to 1:45 am	<b>#9 - An automated program for shielding calculation of a radiotherapy vault</b> <i>Charles R. Rhodes, III, B.A. – University of Toledo</i>
1:45 am to 2:00 am	<b>Coffee Break (Provided) / Vendor Exhibits (Exhibit Breakdown at 2:00 pm)</b>
2:00 am to 2:15 am	<b>#10 – Advantages of implementation of a self-regulating thermobrachytherapy seed in treatment of solid tumors</b> <i>Bhoj R. Gautam, M.S. – University of Toledo</i>
2:15 pm to 2:30 pm	<b>#11 - Clinical challenges in implementing P-31 MR spectroscopy of focal liver lesions</b> <i>Anshuman Panda, M.S. – Purdue University</i>
2:30 pm to 2:35 pm	<b>Judge Deliberation</b>
2:35 pm to 2:50 pm	<b>Awards</b>
2:50 pm to 3:00 pm	<b>Adjournment / Coffee Break (Provided)</b>
3:00 pm to 3:30 pm	<b>Business Meeting</b>

## Exhibitor Acknowledgements

The Ohio River Valley Chapter would like to thank the generous support of the following corporate participants:

### Platinum Tier Sponsors



[www.varian.com](http://www.varian.com)

### Gold Tier Sponsors



[www.usa.philips.com](http://www.usa.philips.com)



# Ohio River Valley Chapter of the AAPM

## Silver Tier Sponsors

	<a href="http://www.siemens.com">www.siemens.com</a>		<a href="http://www.elekta.com">www.elekta.com</a>
	<a href="http://www.accuray.com">www.accuray.com</a>		<a href="http://www.tomotherapy.com">www.tomotherapy.com</a>
	<a href="http://www.nucletron.com">www.nucletron.com</a>		<a href="http://www.xoftinc.com">www.xoftinc.com</a>
	<a href="http://www.teambest.com">www.teambest.com</a>		<a href="http://www.brainlab.com">www.brainlab.com</a>
	<a href="http://www.ptw.de">www.ptw.de</a>		<a href="http://www.iba-dosimetry.com">www.iba-dosimetry.com</a>
	<a href="http://www.standardimaging.com">www.standardimaging.com</a>		<a href="http://www.sunnuclear.com">www.sunnuclear.com</a>
	<a href="http://www.gafchromic.com">www.gafchromic.com</a>		<a href="http://www.radiadyne.com">www.radiadyne.com</a>
	<a href="http://www.scandidos.com">www.scandidos.com</a>		<a href="http://www.multidata-systems.com">www.multidata-systems.com</a>
	<a href="http://www.radimage.com">www.radimage.com</a>		<a href="http://www.orfit.com">www.orfit.com</a>
	<a href="http://www.lacoonline.com">www.lacoonline.com</a>		<a href="http://www.lap-laser.com">www.lap-laser.com</a>
	<a href="http://www.gfix.com">www.gfix.com</a>		<a href="http://www.civco.com">www.civco.com</a>
	<a href="http://www.isoaid.com">www.isoaid.com</a>		<a href="http://www.brachysciences.com">www.brachysciences.com</a>
	<a href="http://www.crbard.com">www.crbard.com</a>		<a href="http://www.theragenics.com">www.theragenics.com</a>
	<a href="http://www.nelcoworldwide.com">www.nelcoworldwide.com</a>		<a href="http://www.coreoncology.com">www.coreoncology.com</a>
	<a href="http://www.landauer.com">www.landauer.com</a>		

## Bronze Tier Sponsors

	<a href="http://oncologytech.com">oncologytech.com</a>		<a href="http://www.gehealthcare.com">www.gehealthcare.com</a>
--	--	--	--



# Ohio River Valley Chapter of the AAPM

## AAPM ORVC Officers



*Michael S. Gossman, M.S., DABR  
ORVC President  
Tri-State Regional Cancer Center  
Ashland, KY*



*Minsong Cao, Ph.D., DABR  
ORVC President-Elect  
Indiana University  
Indianapolis, IN*



*Rebecca F. Richardson, M.S., DABR  
ORVC Secretary/Treasurer  
Louisville Radiation Oncology Center  
Louisville, KY*



*Indra J. Das, Ph.D., DABR, FAAPM  
ORVC Chapter Board Representative  
Indiana University  
Indianapolis, IN*

**The Ohio River Valley Chapter Officers would like to thank you for your attendance. We look forward to seeing you again at our Fall Symposium in Louisville, KY.**

