

# DMIP 2014 Retreat Program

## *“People”*

**Tuesday May 20<sup>th</sup>, 2014**

**----Scientific Sessions at Fisher Hall----**

**9:45am - 10:00am** Setup and Coffee

**10:00am - 10:05am** Opening remarks — Yong Du

**10:05am - 10:15am DMIP Overview talk (10 min)**

By Benjamin M.W. Tsui, Professor and Director of the DMIP

**10:20am - 11:50am Guest Speaker Talk and Panel Discussions (1.5 hr)**

By: Xiaolan Wang, Ph.D.

Moderator: Ken Taguchi

Title: “Introduction to direct-conversion semiconductor detectors” & “Experience of a DMIP graduate”

**12:15pm - 01:15pm** Lunch break at the Dining Hall

**----Group and Outdoor Activities at the Camp----**

**01:30pm - 04:30pm** Teambuilding group activities organized by the YMCA staff

**04:30pm - 05:30pm** Free time, sports.

**06:00pm - 07:00pm** Dinner at the Dining Hall

**----Scientific Sessions at the Fisher Hall ----**

**07:00pm – 07:50pm Teaser Talks I -- Self-introduction and Scientific Projects (12 talks; 4 min)**

Abhinav Kumar Jha, Alexis Cheng, Andy Rittenbach, Fatma ElShahaby; Feng Tao; Fereshteh Aalamifar; Hyun Jae Kang; Jianting Yue; Kento Nakada; Lei Chen; Seth Bilings; Xin Li

**8:00pm - 09:00pm Poster Session I (1 hr)**

Abhinav Kumar Jha, Alexis Cheng, Andy Rittenbach; Fatma ElShahaby; Feng Tao; Fereshteh Aalamifar; Hyun Jae Kang; Jianting Yue; Kento Nakada; Lei Chen; Seth Bilings; Xin Li

**09:15pm -** Camp fire and fun, movie, free time.

Lounging at the Quartermaster I & II or Camping

## Wednesday May 21<sup>st</sup>, 2014

**07:30am - 08:30am** Breakfast at the Dining Hall

### ----Scientific Sessions at the Fisher Hall ----

**08:30am - 09:30am Teaser Talks II – Self-introduction and Scientific Projects (12 talks; 4min)**

Behnoosh Tavakoli, Muyinatu Bell, Esther Vicente, Jiangyan Xu, Jizhe Wang, Kai Zhang  
Ken Taguchi, Nishikant Deshmukh, Teak-Soo Lee, Thibault Mauxion, Xiaoyu Guo, Yinfeng Dong

**9:30am - 10:30am Poster Session II (1 hr)**

Behnoosh Tavakoli, Muyinatu Bell, Esther Vicente, Jiangyan Xu, Jizhe Wang, Kai Zhang  
Ken Taguchi, Nishikant Deshmukh, Teak-Soo Lee, Thibault Mauxion, Xiaoyu Guo, Yinfeng Dong

**10:30am-11:30am DMIP Champion’s League -- Super Q & A Challenge (1 hr)**

**11:30am - 12:00pm Award Ceremony**

**12:00pm - 01:00pm** Lunch break at the camp

### ----Group and Outdoor Activities at the Camp----

**01:00pm - 02:30pm** Group activities organized by the YMCA staff  
(Horseback Riding; Canoe)

**02:30pm - 04:00pm** Group activities organized by the YMCA staff  
(Horseback Riding; Canoe)

## Abstract Titles

Abhinav Kumar Jha	No-gold-standard evaluation methods for quantitative SPECT imaging
Alexis Cheng	Virtual Rigid Body: A New Tracking Paradigm in Ultrasound Guided Interventions
Andy Rittenbach	Results of VECTor+ Acceptance Testing
Fatma ElShahaby	Performance of CHO for different types of data
Feng Tao	Comparison of 4D dual respiratory and cardiac motion correction within reconstruction and dual motion correction after reconstruction
Fereshteh Aalamifar	Co-robotic ultrasound tomography
Hyun Jae Kang	Flexible software framework for acquiring pre-beamformed photoacoustic RF data in real-time.
Jianting Yue	A Simultaneous Dual-isotope I-131/In-111 Quantitative SPECT Reconstruction Method and Validation with Monte Carlo Simulation
Kento Nakada	Joint Estimation of Tissue Types and Linear Attenuation Coefficients for Photon Counting CT
Lei Chen	Detecting Blood-Clots Post-Operatively In Blood Vessel Anastomoses
Seth Bilings	Robust Iterative Most Likely Point Registration
Xin Li	Towards Patient-Specific Optimization of OSEM Reconstruction Methods for Myocardial Perfusion SPECT
Behnoosh Tavakoli	Assessment of osteoporosis with optoacoustic imaging
Muyinatu Bell	In Vivo Photoacoustic Imaging of Prostate Brachytherapy Seeds
Esther Vicente	Regularization of 3D iterative reconstruction for a limited-angle PET tomograph
Jingyan Xu	Direct Focal Activity Characterization in Emission Computed Tomography Using a Gaussian Mixture Image Representation Model
Jizhe Wang	4D Respiratory and Cardiac Motion Correction post Reconstruction for Cardiac PET image with improved temporal resolution
Kai Zhang	Robotic 2D ultrasound calibration utilizing trajectory of moved phantom
Katsuyuki Taguchi	T.B.A.
Nishikant Deshmukh	Elastography using Multi-Stream GPU: An Application to Online Tracked Ultrasound Elastography, In-vivo and the da Vinci Surgical System
Taek-Soo Lee	Evaluation of Image Quality Using Channelized Hotelling Observer for Pediatric Diagnostic Imaging of $^{99m}\text{Tc}$ -Dimercaptosuccinic Acid
Thibault Mauxion	Use of photons with energies below 100 keV in quantitative Y-90 SPECT for liver tumor brachytherapy
Xiaoyu Guo	All-optical active ultrasound pattern injection system
Yinfeng Dong	Model-based Segmentation of Left Ventricle From Nuclear Medicine Cardiac Images

## Trip tik for DMIP RETREAT 2014

**Place:** YMCA Camp Letts  
4003 Camp Letts Road, Edgewater, MD 21037  
Camp Office Telephone: 410-919-1410

**Web:** <http://www.campletts.org>

From Baltimore

Take the Baltimore Beltway (I-695) to I-97 South. Take I-97 to US Route 50 East. Follow Route 50 to MD Route 665 then on to MD Route 2 South (all very close). Follow Route 2 and make a left turn on MD Route 214 East. Go 3 miles then turn right onto Camp Letts Road. Follow for 1.5 miles into camp.



