Great Lakes Chapter

American Association of Physicists in Medicine

Danielle Lack
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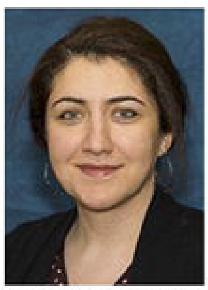
Representative

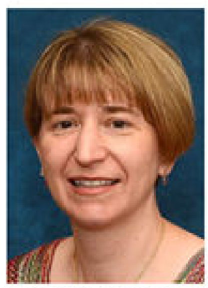
2018 Fall Meeting

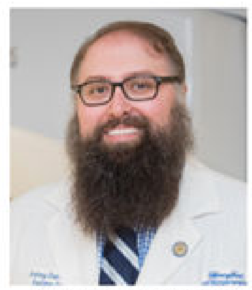
November 8, 2018 ~ 4:00 – 8:00

University of Michigan North Campus Research Complex: 2800 Plymouth Rd, Ann Arbor MI 48109

We invite all GLC members and friends to join us for the fall meeting to revisit the clinical and physics aspects of MRI in brachytherapy and external beam radiotherapy.


Rojano Kashani, PhD


Joann Prisciandaro, PhD


Anthony Doemer, MS

RSVP/register for the meeting at chapter.aapm.org/GLC/

$10 - GLC Members and Associate Members
Free - GLC Student and Resident Members

CAMPEP

This meeting has applied to CAMPEP for approval of 2.25 MPCEC hours

Thanks to our sponsors for helping us continue to provide GLC events!

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4:00 pm	Registration & Refreshments with Sponsors	
4:25 pm	Welcoming remarks	**Danielle Lack, MS** GLC-AAPM President
4:30 pm	Invited Speaker	**Rojano Kashani**, PhD Assistant Professor – Radiation Oncology, University of Michigan
5:15 pm	Gold Sponsor Presentations	
5:30 pm	Refreshment Break - *Visit Sponsors*	
5:50 pm	Invited Speaker	**Joann Prisciandaro, PhD** Associate Professor – Radiation Oncology, University of Michigan
6:35 pm	Invited Speaker	**Anthony Doemer, MS** Senior Staff Physicist, Henry Ford Health System
7:20 pm	Dinner - *Visit Sponsors*	
8:00 pm	Final remarks	**Stephen Gardner, MS** GLC-AAPM President-Elect

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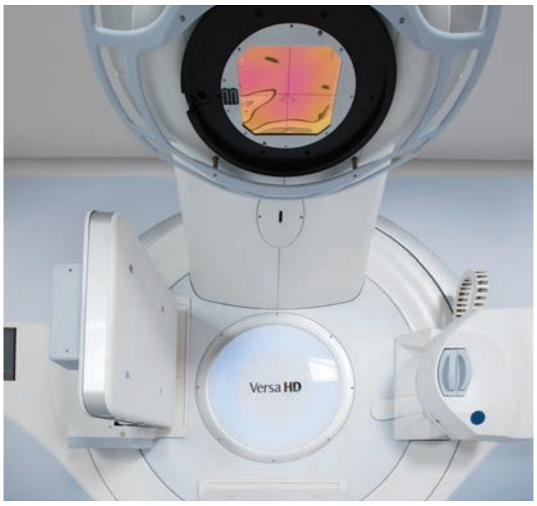
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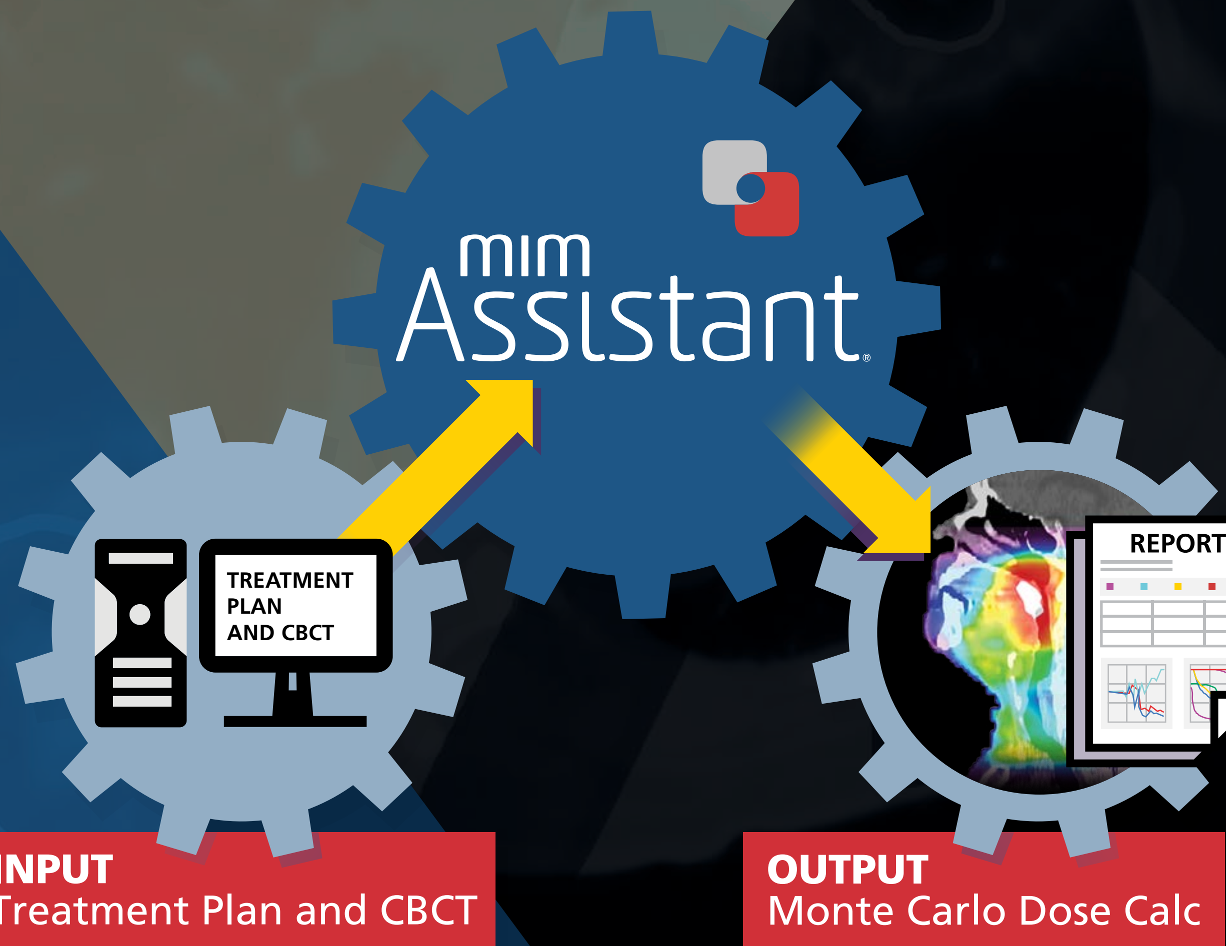

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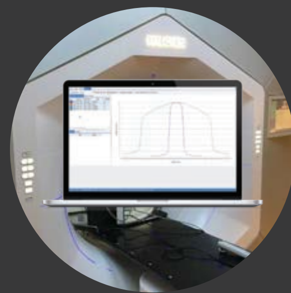
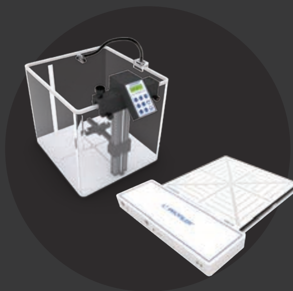
Solutions Spotlight





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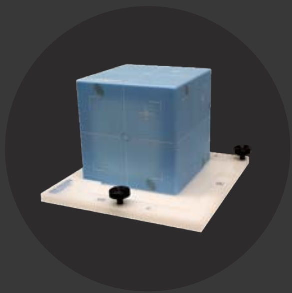

NEW! MultiPHAN™
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MRI^{4D} Motion Phantom

The QUASAR™ MRI^{4D} Motion Phantom is capable of moving inserts in the S/I direction as well as producing a more complex 3D motion profile by twisting the insert during translation in the A/P and R/L directions. Interchangeable inserts are available for imaging, planning, targeting and delivery QA.

A Lighter, Larger and More Efficient Way to Quantify MRI Geometric Distortion in 3D!

At 21 kg, the QUASAR™ MRID^{3D} Geometric Distortion Analysis System is half the weight of a water-filled grid phantom of the same volume (39.4 cm x 39.1 cm).

It includes recessed handles, integrated 3 point contact feet and engraved landmarks for convenient

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Fiducials are pre-filled with susceptibility matched mineral oil to prevent plastics from swelling and allow for fast high contrast 3D T1W scanning.

The system includes robust software to automatically identify the location of the isocenter and control points in the acquired MR images of the phantom and uses a fully automated process to compare them against the truth to calculate the geometric distortion.

The QUASAR™ GRID^{3D} Image Distortion Analysis System is designed to evaluate image distortion in 3D MR images for stereotactic radiosurgery (SRS).

The system is comprised of a phantom and analysis software which work together to produce a 3D map of spatial distortion with submillimeter accuracy throughout a volume of interest. The GRID^{3D} System ensures that MR imaging can support the outstanding geometric precision and dosimetric accuracy of the Leksell Gamma Knife®, including PERFEXION™.

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Personalized Planning

Delivering state-of-the-art, personalized IMRT and VMAT treatment planning

Personalized planning provides:

Quality of treatment planning process with personalized, patient specific goals integrated from the start

Pinnacle Evolution introduces **Personalized Planning**

- **Advanced**, protocol based, therapy planning workflow
- Next-generation **automated optimization** algorithms and
- **Complete** integration with PlanIQ Feasibility from Sun Nuclear

Consistency of results from local clinic to main campus, from novice to the expert with advanced automated planning tools

Intelligent algorithms working to achieve consistent, personalized results

- Redefining first generation Auto-Planning by adding more:
  - **Control**
  - **Versatility**
  - **Power**

Efficiency of planning workflow to achieve clinically deliverable, personalized therapy

Pinnacle Evolution achieves both fast optimizations ***and*** clinically deliverable, personalized plans with:

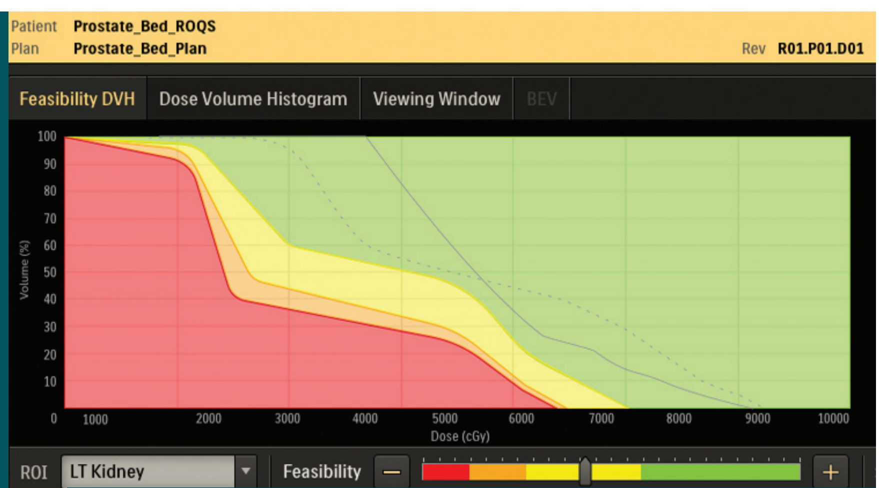
- Next generation, Philips **proprietary IMRT and VMAT** optimization
- **Improved** speed performance up to **70%**[2]
- **Integrated PlanIQ Feasibility** creates Personalized Plans quickly and confidently right in the planning window

1. Not available in all markets. Please check with your local Philips sales representative for more information
2. Optimization times may vary depending planning needs. Compared to Pinnacle 16.2

Key advantages

Achieve patient-specific plan quality

- **Improve** plan quality by using feasible optimization goals
- **Create** patient specific, personalized, therapy plans
- **Reduce** the time needed to create a plan by reducing trial and error



Personalized Planning in Pinnacle Evolution with integrated OAR feasibility

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Oct 2018