AAPM-COMP 2020
Annual Student Meeting

Ara Alexandrian, Ph.D. 2020 AAPM STSC Chair
Who are we?

• 17 student and trainee voting members
• 5 non-voting appointments
• 2 faculty advisors

Chair & Vice-Chair

Faculty Advisors

IT Communication

Annual Student Night Out

MedPhys Slam

ABR IC Advisory Team

Residency Fair

Interview Workshop

New 2020 Members

Ara Alexandrian, PhD

Mallory Glenn, PhD

Todd Atwood, PhD

Phillip Wall, PhD

Rebecca Mahon, Ph.D.

Natalie Viscariello, Holly Parenica, PhD

Catherine Steffel, MS

Sam Simiele, PhD

Reed Kolany

Daniela Branco, PhD

Emily Thompson, PhD

Ahtesham Khan

Clara Fallone

Mary Gronberg, MS

Mychaela Coyne, PhD

Eric Morris, PhD

Kristen McConnell, PhD
We are Recruiting!

Look out for STSC applications in the Fall
Yearly Activities

- Letter to Education Council about the MedPhys Match
- ABR Exams & Current COVID Situation
- Working with EXCOM to change how trainees are listed on committees (guests – nonvoting)
- Promote Students & Trainees Opportunities on Social Media
- Planning for Annual AAPM Meeting - virtualization
- Virtual Residency Fair and coordinating residency program open houses
- Working with UC San Diego to make Videos for Online Interviews
- Coordinate Chapter MedPhys Slam Events
- Working Group of Non-Clinical Medical Physicists to expand non-clinical resources in the STSC
We had 13 chapters hold their chapter competitions before we had to cancel the final Slam competition at the meeting.

We wanted to recognize the efforts of those individuals today. And say a big thanks to those chapters that participated!
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<tr>
<th>Name</th>
<th>Institution</th>
<th>Chapter</th>
<th>Presentation Title</th>
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<tr>
<td>Karl Mund</td>
<td>University of Florida</td>
<td>Florida Chapter</td>
<td>The Artificial Hero</td>
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<tr>
<td>Noora Ba Sunbul</td>
<td>University of Michigan</td>
<td>Great Lakes Chapter</td>
<td>Ionized Radiation Acoustic Imaging (iRAI) for In-vivo FLASH Dosimetry</td>
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<td>Michael Trimpl</td>
<td>University of Oxford Institute of Biomedical Engineering</td>
<td>International Contingent</td>
<td>The Sidekick Healthcare Heroes Deserve</td>
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<td>Bright (Oluyemi) Aboyewa</td>
<td>Creighton University</td>
<td>Missouri River Valley Chapter</td>
<td>Safety in MRI Patients with Abandoned Epicardial Leads</td>
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<tr>
<td>Yanjing Li</td>
<td>Rutgers Cancer Institute of New Jersey</td>
<td>New Jersey Chapter</td>
<td>Stability Studies of Radiomics Features on CT Images Using a Bio-phantom</td>
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<td>Dylan Hsu</td>
<td>Memorial Sloan Kettering Cancer Center</td>
<td>New York (RAMPS) Chapter</td>
<td>Detection and Segmentation of Brain Metastases on MR and CT Images Using Machine Learning and a Novel Optimized Thresholding Technique</td>
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<td>Peter Germain</td>
<td>University of Massachusetts-Lowell</td>
<td>Northeast Chapter</td>
<td>Optical Detection of Breast Cancer</td>
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<tr>
<td>Tomi Nano</td>
<td>University of California San Francisco</td>
<td>Northern California Chapter</td>
<td>Reducing IMRT QA Workload by 95% and Keeping the Same Level of Quality Control</td>
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<td>Austin Turnidge</td>
<td>Oregon Health &amp; Science University</td>
<td>Northwest Chapter</td>
<td>Testing the microSilicon Detector</td>
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<td>Drew Carlton</td>
<td>University of Kentucky</td>
<td>Ohio River Valley Chapter</td>
<td>Vendor Mis-Calibration of Pre-Clinical Irradiator</td>
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<td>Naveed Islam</td>
<td>UPMC Hillman Cancer Center / University of Pittsburgh Medical School</td>
<td>Penn-Ohio Chapter</td>
<td>A Novel Approach to Quality and Safety Management in Radiotherapy During a Pandemic</td>
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<td>Zachary Diamond</td>
<td>Georgia Institute of Technology</td>
<td>Southeast Chapter</td>
<td>Robustness of AirNET to Training Library for Sparse-View CT</td>
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<td>Soleil Hernandez</td>
<td>MD Anderson Cancer Center</td>
<td>Southwest Chapter</td>
<td>Needed Gains to Save Young Brains</td>
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Stay tuned for more STSC events!

• Follow us online:

@aapmstsc
2020 STSC Annual Student Meeting:
Radiobiology - The Key Toward Individualized Patient Care

Kristen McConnell, PhD
University of Alabama at Birmingham

Vitali Moiseenko, PhD
UC San Diego

Michael Joiner, PhD
Wayne State

Emily Thompson
MD Anderson

Robert Stewart, PhD
University of Washington

Jay Burmeister, PhD
Wayne State

I'm just a Trainee...How Can I Help?

Deconvolving Individual Dose Response to Maximize Therapeutic Ratio

Practical Radiobiologic Concepts All Physicists Should Know Well

Telling the Biological Story with Multi-Modality Imaging

Opportunities for Multi-Modality Radiation Therapy

Discussion
I'M JUST A TRAINEE... HOW CAN I POSSIBLY HELP?

KRISTEN A MCCONNELL, PHD
THE UNIVERSITY OF ALABAMA AT BIRMINGHAM
HAVE YOU THOUGHT ABOUT HOW THESE WERE ESTABLISHED? WHAT ARE THE LIMITATIONS?

Mobius3D software automatically checks DVH limits for your plans, making this chart a thing of the past.
MY COLLEAGUE THINKS I’M A DUMB@$$

What do you think?

errrr...?
WHAT ABOUT IMAGING?
WHAT ABOUT COMBINING MODALITIES?
LET’S KICK THIS OFF!

Vitali Moiseenko, PhD
UC San Diego
Deconvolving Individual Dose Response to Maximize Therapeutic Ratio

Michael Joiner, PhD
Wayne State
Practical Radiobiologic Concepts All Physicists Should Know Well

Emily Thompson
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Telling the Biological Story with Multi-Modality Imaging

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Opportunities for Multi-Modality Radiation Therapy