AAPM 101
an introductory course

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Northwest Medical Physics Center
Lynnwood, WA
Thank You’s

- Justin Keener
- Dr. George Sherouse
- Numerous colleagues and mentors
- Special thanks (sharing information and slides)
  - Jessica Clements
  - AAPM HQ
Conflict of Interest

• None to declare
• I am a member of the following societies:
  • AAPM, ABS, ASTRO
Learning Objectives

Course Outline

• review the Who, What, When and Where of the AAPM
• share some AAPM factoids
• review how to volunteer
• review some resources on the AAPM website
  • MOC tools
  • Career Center tools
How many of y’all have attended an AAPM committee meeting?

1. Yes 20%
2. No 20%
3. What is a committee meeting? 20%
4. Do I need an invitation to attend a committee meeting? 20%
5. Why do I want to attend a committee meeting? 20%
How many of y’all have attended an AAPM committee meeting?

• You do not need an invitation
• All committees are open for members to attend unless they are in executive session
• Check out the committee schedule and the committee webpages to see what is going on “under the hood”
What year was the AAPM founded?

<table>
<thead>
<tr>
<th></th>
<th>1.</th>
<th>1895</th>
</tr>
</thead>
<tbody>
<tr>
<td>20%</td>
<td>2.</td>
<td>1896</td>
</tr>
<tr>
<td>20%</td>
<td>3.</td>
<td>1905</td>
</tr>
<tr>
<td>20%</td>
<td>4.</td>
<td>1958</td>
</tr>
<tr>
<td>5.</td>
<td>2012</td>
<td></td>
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</tbody>
</table>
AAPM History

When was the AAPM founded?

- 1895 is when Roentgen discovered the X-Ray
- 1896 is when Becquerel discovered Radioactivity
- 1905 is when Einstein published on special relativity, photoelectric effect and Brownian motion
- 1958 is when the AAPM is formed
- 2012 is when the Higgs Boson is found

references:
http://www.aapm.org/org/history/journal/formation2.pdf
AAPM Mission Statement

or what is the AAPM?

Mission Statement

Adopted by the AAPM Board of Directors - November 28, 2009

Vision:
The American Association of Physicists in Medicine is the premier organization in medical physics, a broadly-based scientific and professional discipline encompassing physics principles and applications in biology and medicine.

Mission:
The mission of the American Association of Physicists in Medicine is to advance the science, education and professional practice of medical physics.

Goals:
The goals of the American Association of Physicists in Medicine are to:

1. Promote the highest quality medical physics services for patients.
2. Encourage research and development to advance the discipline.
3. Disseminate scientific and technical information in the discipline.
4. Foster the education and professional development of medical physicists.
5. Support the medical physics education of physicians and other medical professionals.
6. Promote standards for the practice of medical physics.
7. Govern and manage the Association in an effective, efficient, and fiscally responsible manner.

http://www.aapm.org/org/objectives.asp
AAPM Organizational Structure

Who is the AAPM?
Governance Documents:

• Articles of Incorporation (*initially filed Nov 10, 1965*)
  • Establish initial structure - “owned” by the District of Columbia

• By-Laws (*adopted at the annual business meeting, Dec 2, 1965*)
  • Provide details of the governance structure - “owned” by the membership

• Rules
  • Detail and expedite administrative matters - “owned” by the Board of Directors

*Governance Documents are available on-line*
http://www.aapm.org/org/organization.asp
AAPM Organizational Structure

Who is the AAPM?

There are a total of 49 members and guests on the current 2014 Board of Directors roster (see: http://www.aapm.org/org/structure/?committee_code=BRD)

38 voting members:
5 officers, 21 chapter reps and 12 members at large

Current roster contains the following members:

- Chairman of the board (1)
- Organization officers (4)
- Executive director (1)
- Chapter representatives (21)
- Members -at-large (12)
- Council chairs and vice-chairs (8)
- AIP Board Representatives (3)
- Consultant/Parliamentarian (1)

= EXCOM

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Board of Directors (BoD)

- Responsibilities
  - Affairs of the organization – must approve all obligations (financial or otherwise)
  - Must approve presidential appointments
  - Appoints an executive director
  - Must approve an operating budget for each fiscal year (calendar)
  - Adopts policies and procedures
    - Statements of policy, philosophy, and opinion for the position of AAPM
  - Meets at least twice per year

Minutes are available on-line
http://www.aapm.org/org/organization.asp

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What is the most common first name of those that have been/are AAPM president?

<table>
<thead>
<tr>
<th></th>
<th>Name</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>1</td>
<td>Gary</td>
<td>20%</td>
</tr>
<tr>
<td>2</td>
<td>Robert</td>
<td>20%</td>
</tr>
<tr>
<td>3</td>
<td>Gail</td>
<td>20%</td>
</tr>
<tr>
<td>4</td>
<td>John</td>
<td>20%</td>
</tr>
<tr>
<td>5</td>
<td>Peter</td>
<td>20%</td>
</tr>
</tbody>
</table>
What is the most common first name of those that have been/are AAPM president?

<table>
<thead>
<tr>
<th>First Name</th>
<th>Count</th>
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<tbody>
<tr>
<td>William</td>
<td>3</td>
</tr>
<tr>
<td>Warren</td>
<td>3</td>
</tr>
<tr>
<td>Stephen</td>
<td>3</td>
</tr>
<tr>
<td>Robert</td>
<td>3</td>
</tr>
<tr>
<td>Richard</td>
<td>3</td>
</tr>
<tr>
<td>Raymond</td>
<td>3</td>
</tr>
<tr>
<td>Ravinder</td>
<td>3</td>
</tr>
<tr>
<td>Peter</td>
<td>3</td>
</tr>
<tr>
<td>Paul</td>
<td>3</td>
</tr>
<tr>
<td>Nagalingam</td>
<td>3</td>
</tr>
<tr>
<td>Michael</td>
<td>3</td>
</tr>
<tr>
<td>Maryellen</td>
<td>3</td>
</tr>
<tr>
<td>Mary</td>
<td>3</td>
</tr>
<tr>
<td>Marvin</td>
<td>3</td>
</tr>
<tr>
<td>Martin</td>
<td>3</td>
</tr>
<tr>
<td>Lawrence</td>
<td>3</td>
</tr>
<tr>
<td>Kenneth</td>
<td>3</td>
</tr>
<tr>
<td>John</td>
<td>3</td>
</tr>
<tr>
<td>James</td>
<td>3</td>
</tr>
<tr>
<td>Jacques</td>
<td>3</td>
</tr>
<tr>
<td>Jack</td>
<td>2</td>
</tr>
<tr>
<td>J. Anthony</td>
<td>2</td>
</tr>
<tr>
<td>Howard</td>
<td>2</td>
</tr>
<tr>
<td>Guy</td>
<td>2</td>
</tr>
<tr>
<td>Gerald</td>
<td>2</td>
</tr>
<tr>
<td>Geoffrey</td>
<td>2</td>
</tr>
<tr>
<td>Gary</td>
<td>2</td>
</tr>
<tr>
<td>Gail</td>
<td>2</td>
</tr>
<tr>
<td>G. Donald</td>
<td>2</td>
</tr>
<tr>
<td>Fearghus</td>
<td>2</td>
</tr>
<tr>
<td>Faiz</td>
<td>2</td>
</tr>
<tr>
<td>Edwin</td>
<td>2</td>
</tr>
<tr>
<td>Edward</td>
<td>2</td>
</tr>
<tr>
<td>E. Russell</td>
<td>2</td>
</tr>
<tr>
<td>Colin</td>
<td>2</td>
</tr>
<tr>
<td>Charles</td>
<td>2</td>
</tr>
<tr>
<td>C. J.</td>
<td>2</td>
</tr>
<tr>
<td>Bruce</td>
<td>2</td>
</tr>
<tr>
<td>Bhudatt</td>
<td>2</td>
</tr>
<tr>
<td>Bengt</td>
<td>2</td>
</tr>
<tr>
<td>Ann</td>
<td>2</td>
</tr>
<tr>
<td>Alfred</td>
<td>2</td>
</tr>
</tbody>
</table>

The most common first names are William, Warren, Stephen, Robert, Richard, Raymond, and Ravinder, each occurring 3 times.
AAPM Organizational Structure

• 2014 Officers
  • John Bayouth, President
  • John Boone, President-Elect
  • John Hazle, Chairman of the Board
  • Beth Schueler, Secretary
  • Matthew Podgorsak, Treasurer

• 2015 Officers
  • John Boone, President
  • Bruce Curran, President-Elect
  • John Bayouth, Chairman of the Board
  • Todd Pawlicki, Secretary
  • Matthew Podgorsak, Treasurer
AAPM Organizational Structure

As of May 2014

- 4 Councils
- 46 Committees
- 73 Subcommittees
- 47 Working Groups
- 72 Task Groups
- 21 units

The number of positions (including staff) is 3685 filled by 1302 distinct persons (including staff)

There are 26 AAPM staff

Statistics provided by Michael Woodward, AAPM HQ
www.aapm.org/org/default.asp
Why get involved?

- Networking
  - mentor and be mentored
- Learn skills
  - how to manage (or how not to)
  - organizational skills
  - leadership skills
  - financial skills
- It is your profession
  - understand the internal and external forces affecting our profession
- Give back
How to get involved?

- Local chapter
- Watch the “Yellow Book” ads
- Attend committee meetings
- Propose an idea for a new committee, subcommittee, or WG
- Email the chair and/or vice-chair or sit in on a committee meeting
- Look for other opportunities outside the general committee structure – one example is being a summer undergraduate fellowship mentor
  - [http://www.aapm.org/education/SUFP/default.asp](http://www.aapm.org/education/SUFP/default.asp)

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How to get involved?

Ok you are shy and want to lurk but still want to see what it’s all about.

What should AAPM be working on?
How can the organization better serve you?

Attend the Annual Business Meeting and Town Hall Meeting on

**Wednesday, July 23rd from 6:15 PM - 7:30 PM**

in Ballroom F of the Austin Convention Center.
Here are some of the major items being discussed at the Board of Directors' Meeting on Thursday, July 24th:

• Acceptance of the 2013 Audit Report
• Selection of San Antonio as site for 2019 Annual Meeting
• Draft text to be added to the Bylaws that would outline process to remove elected officers or Board Members
• Discussions with NCRP and ICRU on an "AAPM organizational subscription" that would give AAPM Full members access to their publication
• Proposed Residency Pairing Program
• Consolidation of AAPM's two Journal Business Management Committees
• Medical Physicist Assistants
How to get involved?

Do you monitor the AAPM BBS?
Who are the members?

On our website, the number of members:

8191

as of May 2014

7997 members

47 corporate members

629 student members

used with permission from Jessica Clements, AAPM HQ
Where is AAPM HQ located?

<table>
<thead>
<tr>
<th>Rank</th>
<th>Location</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>New York City, New York</td>
<td>20%</td>
</tr>
<tr>
<td>2</td>
<td>Houston, Texas</td>
<td>20%</td>
</tr>
<tr>
<td>3</td>
<td>Lynnwood, WA</td>
<td>20%</td>
</tr>
<tr>
<td>4</td>
<td>College Park, Maryland</td>
<td>20%</td>
</tr>
<tr>
<td>5</td>
<td>Madison, WI</td>
<td>20%</td>
</tr>
</tbody>
</table>
Where is AAPM located?

The AAPM is located on the 5th floor which we share with the AAPT, occupy a little over 6000 usable square feet of space and have space for 23 staff.

AAPM
One Physics Ellipse
College Park, MD 20740
What is the average number of emails received by AAPM staff in a day?

1. 50
2. 500
3. 1000
4. 1500
5. 2000
What is the average number of emails received by AAPM staff in a day?

AAPM Email and Web Traffic
For the period 3/20/14-4/19/14:
AAPM.org staff received 121,984 messages
  59,940 were flagged as spam
  2223 contained a virus
  3519 were whitelisted and
  56226 were filtered as clean.

That's an average of 2,000 per day received by staff.

AAPM staff sent an average of 1,000 messages per day for the same period.

Statistics provided by Michael Woodward
Tidbits and Factoids

AAPM and Server Infrastructure
- 14 physical machines
  - 2 physical servers comprising a private cloud connected to 10 terabytes of storage
- 1 VPN appliance
- 1 Google branded search appliance
- 2 physical Linux mail servers
- 2 abstract conversion machines
- 6 older physical servers that used to be production machines but are now used for cold storage, testing and development

- Windows NT Server (2008R2 and a few 2003) and Red Hat Linux Enterprise on production servers

- Two 100MB links to the Internet
Tidbits and Factoids

AAPM SERVERS (BASEMENT)
REVISED MARCH 2013

RACK 1
- 5U
  - RHIANNON
  - CALVIN
  - PSYLOCKE
- 1U
  - RACK CONSOLE 15P
- 1U
  - GOOGLE MINI
- 3U
  - POWERVAULT 220S(DISK)
- 1U
  - WOLVERINE
- 2U
  - DISCOVERY

RACK 2
- 1U
  - POWER
  - SWITCHES
  - CABLES
- 1U
  - GIN (SAN)
- 1U
  - JUICE (SAN)
- 2U
  - RUM(vSphere)
- 2U
  - COKE(vSphere)
- 1U
  - VPN
- 2U
  - BAMBAM
- 2U
  - CONQUEST
- 2U
  - CRYSTAL
- 2U
  - HANS
- 2U
  - FRANS
- 3U
  - iSCSI(DISK)
Overview of Career Services

- Other than to browse jobs, you need to create a login
  - The login allows you to
    - upload your CV
    - create job alerts
    - apply for jobs
How to create a job alert?

Welcome, Robin

- Apply for any of our [39 Jobs] today
- Get new jobs sent to your inbox with a [Job Alert]
- [Post your Resume] to all Employers, even confidentially
- Attract top industry employers with your [AAPM Membership]

Career Services Resources

Resources
AAPM Career Services offers professional services to help with all of your career needs! Check out the tools below to begin improving your career today.

Career Learning Center
Our Learning Management System will help you further your training with customized learning content.

Career Advice from Alaina G. Levine
Alaina G. Levine is a STEM career consultant, science and engineering writer, and professional speaker and comedian. Her new book, Networking for Nerds (on networking strategies for scientists and engineers), will be published by Wiley in 2014.

Career Profiles
Review detailed information about some of the most exciting available career paths in the science and engineering fields.

Resume Advice
The resume is the first, and sometimes only, impression a hiring manager will get of an individual applying for a Medical Physics position. Therefore, the Placement Services Subcommittee thought it important to provide some advice and examples that would educate and guide individuals in constructing a clear and professional looking resume.

Interviewing Advice
Interviewing soon? Prepare for both technical and behavioral questions with real-world advice from experienced AAPM member colleagues, including an essential interviewing boot camp to aid you in putting your very best foot forward.
MOC resources

The ABR now issues updates on the requirements
http://theabr.org/moc-rp-landing

MOC REQUIREMENTS

A summary of the six competencies and four parts of Maintenance of Certification can be found here.

To view the MOC participation schedule and detailed guidelines used to evaluate acceptable participation, see the MOC Participation Guidelines.

A brochure on MOC for Medical Physics, which includes information about Continuous Certification, is available here.

Check here for links and information (trust but verify on the ABR site):

http://moc.aapm.org/
Online Learning Center

Message from the Chair

It’s July, which means the AAPM Annual Meeting is almost upon us.

In the latest AAPM Newsletter, George Starkschall points out numerous education related sessions at the upcoming meeting. I would like to highlight two which are specific to the online learning center.

First, the Education Council Symposium is Sunday morning from 9:30 – 11:00 a.m. It features several speakers describing a broad range of topics in medical physics education. I plan to be there and hope you will too.

Second, Monday afternoon there is a Professional Session (2:45 – 3:45 p.m.) where I have an Oral presentation. During my 7 minutes I will try to address how MOC participants can meet their current continuing education requirements through the online learning center.

In addition, for those in Austin early, Saturday afternoon (3:00 - 5:00 p.m.) the Online Learning Services Subcommittee will be meeting. The meeting is open to anyone and we always welcome comments and suggestions.

I still get e-mail requests for more quizzes as well as questions about why quizzes expire. As for the latter, part of the goal of continuing education is to help people keep up with what is new. In addition, our quizzes are accredited by CAMPEP who mandates that we retire them after 3 years. For those reasons, we must continually generate new quizzes.

If you would like to see more quizzes in a specific category, please send me a link to the reference material you would like to see a quiz based on. It could be an article in MedPhys or JACMP, or something in the AAPM Virtual Library. If you are willing to write the quiz let me know. If not, I can try to find another volunteer. But without volunteers from AAPM members, none of this happens.

The Webcast of the Month highlights FMEA and QM for External Beam Radiotherapy from the 2013 AAPM Summer School.

Finally, I want to mention George Kagadis’ Website Editor Report in the latest AAPM Newsletter on our new Virtual Library, now hosted on Vimeo.

Charles D. Bloch
Chair Online Learning Services Subcommittee
Presentations posted in the Virtual Library include:
- streaming video and/or audio of the speakers
- transcription of the audio for numerous presentations
- slides of the presentations

Medical Physics Continuing Education Credits (Members Only)
The AAPM On-Line Learning Services Subcommittee is actively posting continuing education question/answer sets for several of the Virtual Library presentations.

If you're not familiar with the Online Learning Center program, please review the information posted here.

Search the virtual library:
By Title: [ ] [Submit Query]
By Presenter: [ ] [Submit Query]
(Includes Institution information)

Browse the virtual library
- by CAMPEP category
- in a comprehensive list of all videos
- by choosing a tab below

Now Available | Meetings | Physicists of Note | Items of Interest | Educators Day | Vendor Presentations | CRCPD | DVD/CDs

2014

2014 AAPM Spring Clinical Meeting | Top 25
Phoenix, AZ

2013 AAPM Annual Meeting | Top 25
55th Annual Meeting - Indianapolis, IN

2013 AAPM Spring Clinical Meeting | Top 25
AJPM 3rd CT Dose Summit: Strategies for Scan Parameter Optimization - Phoenix, AZ

2013 AAPM Summer School | Top 25
Phoenix, AZ

2013 AAPM Summer School | Top 25
Colorado College, Colorado, CO

2012

2012 AAPM Annual Meeting | Top 25
54th Annual Meeting - Charlotte, NC

2012 AAPM Spring Clinical Meeting | Top 25
Dallas, TX

2012 AAPM Summer School | Top 25
Medical Imaging Using Ionizing Radiation: Optimization of Dose and Image Quality - UC San Diego, San Diego, CA
Thank you very much!

I wish y’all great professional success