The Expanding Role of Medical Physics in Diagnostic Imaging

June 22 - June 26, 1997
Georgetown University
Washington, DC

Program Directors:
G. Donald Frey, Ph.D. and Perry Sprawls, Ph.D.

International Organizing Committee:
Philip Dendy, Ph.D., G. Donald Frey, Ph.D., Alain Noel, Ph.D.,
Perry Sprawls, Ph.D., and Ron Van Loon, Ph.D.

Local Arrangements:
Marlene McKetty, Ph.D., Chair
assisted by members of the AAPM Mid Atlantic Chapter
The 1997 Summer School will focus on diagnostic imaging and will provide the medical physicist with the knowledge required to support the rapid transition of medical imaging from film-based applications to fully integrated digital systems. The school will provide a broad-based review of the status of radiographic and fluoroscopic imaging but will emphasize the expanding functions that medical physicists will have to provide in the future. These include: systems analysis and planning for the digital environment, equipment acquisition, the evaluation of digital systems performance and quality assurance.

**PROGRAM DIRECTORS:**
Donald Frey freygd@musc.edu  
Perry Sprawls sprawls@emory.edu

**LOCAL ARRANGEMENTS:**
Marlene McKetty fax: (202) 865-3285

**INTERNATIONAL ORGANIZING COMMITTEE:**
Philip Dendy  
Alain Noel  
Ron Van Loon  
G. Donald Frey  
Perry Sprawls

**FACULTY**

Benjamin Archer, Ph.D.  
Baylor College of Medicine  
Houston, TX

Stephen Balter, Ph.D.  
Columbia University  
New York, NY

Gary Barnes, Ph.D.  
University of Alabama  
Birmingham, AL

Priscilla Butler, M.S.  
George Washington University  
Washington, DC

Walter Carpenter, M.D., Ph.D.  
Emory University  
Atlanta, GA

Ian Cunningham, Ph.D.  
Robarts Research Institute  
London, ON, Canada

Robert Dixon, Ph.D.  
Bowman Gray School of Medicine  
Winston-Salem, NC

Samuel Dwyer, Ph.D.  
University of Virginia  
Charlottesville, VA

Keith Faulkner, Ph.D.  
Newcastle General Hospital  
London, England

Donald Frey, Ph.D.  
Medical University South Carolina  
Charleston, SC

Lee Goldman, M.S.  
Hartford Hospital  
Hartford, CT

Robert Gould, Sc.D.  
University of California  
San Francisco, CA

Steven Horii, M.D.  
Hospital of the University of Pennsylvania  
Philadelphia, PA

Lee Kitts, Ph.D.  
Sterling Diagnostic Imaging, Inc.  
Hendersonville, NC

Melissa Martin, M.S.  
Therapy Physics, Inc.  
Bellflower, CA

Alain Noel, Ph.D.  
Centre Alexis Vautrin  
Vandoeuvre, France

Robert Pizzutiello, M.S.  
Upstate Medical Physics  
Victor, NY

Alan Rowberg, M.D.  
University of Washington  
Seattle, WA

J. Anthony Seibert, Ph.D.  
University of California - Davis  
Sacramento, CA

Perry Sprawls, Ph.D.  
Emory University  
Atlanta, GA

Achim Stargardt, Ph.D.  
Klinik fur Radiologische Diagnostik  
Aachen, Germany

Jon Trueblood, Ph.D.  
Medical College of Georgia  
Augusta, GA

Ron Van Loon, Ph.D.  
Vrije Universiteit Brussels  
Brussels, Belgium

Piet Vuylsteke, Ph.D.  
AGFA Corporation  
Mortsel, Belgium

**For further information contact:**
Lisa Rose Sullivan  
AAPM Projects Manager  
Tel: 301-209-3387  
Fax: 301-209-0862

One Physics Ellipse  
lrose@aapm.org  
College Park, MD 20740-3846
# SCIENTIFIC PROGRAM SCHEDULE

## SUNDAY, JUNE 22

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 am - 9:30 am</td>
<td>Perry Sprawls</td>
<td>Characteristics of Medical Images for Effective Diagnosis - The Expanding Role of the Medical Physicist</td>
</tr>
<tr>
<td>9:30 am - 10:30 am</td>
<td>Perry Sprawls</td>
<td>Digital Imaging Concepts &amp; Applications</td>
</tr>
<tr>
<td>10:50 am - 1:50 pm</td>
<td>J. Anthony Seibert</td>
<td>Computed Radiography Technology &amp; QA</td>
</tr>
<tr>
<td>1:15 pm - 2:15 pm</td>
<td>Robert Gould</td>
<td>New Detector Technology</td>
</tr>
<tr>
<td>2:15 pm - 3:15 pm</td>
<td>Piet Vuylsteke</td>
<td>Optimizing CR Imaging Performance</td>
</tr>
<tr>
<td>3:40 pm - 4:40 pm</td>
<td>Lee Kitts</td>
<td>Film Screen Systems Recent Advances</td>
</tr>
</tbody>
</table>

## MONDAY, JUNE 23

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 am - 9:30 am</td>
<td>Ron Van Loon</td>
<td>X-ray Tubes &amp; Generators</td>
</tr>
<tr>
<td>9:30 am - 10:30 am</td>
<td>Achim Stargardt</td>
<td>Fluoroscopy - Recent Developments &amp; Current Status</td>
</tr>
<tr>
<td>10:50 am - 11:50 am</td>
<td>Melissa Martin</td>
<td>Fluoroscopy System Evaluation</td>
</tr>
<tr>
<td>1:15 pm - 2:15 pm</td>
<td>Ian Cunningham</td>
<td>Analyzing System Performance</td>
</tr>
<tr>
<td>2:15 pm - 3:15 pm</td>
<td>Benjamin Archer</td>
<td>Shielding Design - New Data &amp; Concepts</td>
</tr>
<tr>
<td>3:40 pm - 4:40 pm</td>
<td>Robert Dixon</td>
<td>Shielding Design - Using the New Methods</td>
</tr>
</tbody>
</table>

## TUESDAY, JUNE 24

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 am - 9:30 am</td>
<td>Donald Frey</td>
<td>PACS Design</td>
</tr>
<tr>
<td>9:30 am - 10:30 am</td>
<td>Steven Horii</td>
<td>Network Design Technology and Archives</td>
</tr>
<tr>
<td>10:50 am - 11:50 am</td>
<td>Alain Noel</td>
<td>Digital Image Quality Issues</td>
</tr>
</tbody>
</table>

*Afternoon off to relax and enjoy the city*

## WEDNESDAY, JUNE 25

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 am - 9:30 am</td>
<td>Samuel Dwyer</td>
<td>Soft Copy Displays and Digitizers</td>
</tr>
<tr>
<td>9:30 am - 10:30 am</td>
<td>Walter Carpenter</td>
<td>Issues in Teleradiology</td>
</tr>
<tr>
<td>10:50 am - 11:50 am</td>
<td>Alan Rowberg</td>
<td>Image Compression</td>
</tr>
<tr>
<td>1:15 pm - 2:15 pm</td>
<td>Jon Trueblood</td>
<td>Radiation Safety - The Impact of the Current Regulations</td>
</tr>
<tr>
<td>2:15 pm - 3:15 pm</td>
<td>Keith Faulkner</td>
<td>The Potential for Reducing Exposure in X-ray Imaging</td>
</tr>
<tr>
<td>3:40 pm - 4:40 pm</td>
<td>Stephen Balter</td>
<td>Training Non-Radiologists in the Safe Use of Fluoroscopy</td>
</tr>
</tbody>
</table>

## THURSDAY, JUNE 26

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<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
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</thead>
<tbody>
<tr>
<td>8:30 am - 9:30 am</td>
<td>Lee Goldman</td>
<td>Medical Physics Budgets &amp; Cost Justification</td>
</tr>
<tr>
<td>9:30 am - 10:30 am</td>
<td>Donald Frey</td>
<td>Communicating the Results of Medical Physics Surveys</td>
</tr>
<tr>
<td>9:30 am - 10:30 am</td>
<td>Melissa Martin</td>
<td>Surveys</td>
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<tr>
<td>10:50 am - 11:50 am</td>
<td>Robert Pizzetiuello</td>
<td>Mammography - Technology Update</td>
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<tr>
<td>1:15 pm - 2:15 pm</td>
<td>Priscilla Butler</td>
<td>Mammography - Regulatory Update</td>
</tr>
<tr>
<td>2:15 pm - 3:15 pm</td>
<td>Gary Barnes</td>
<td>Mammography - Optimizing System Performance</td>
</tr>
</tbody>
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TO REGISTER

Included in this brochure is the official Registration form. The form consists of three parts: Meeting registration, Housing registration and Companion’s Program Tour registration.

Please complete the form in its entirety and return with credit card information or enclose check payable to AAPM in U.S. dollars only. Send completed form and payment to:

AAPM
P.O. Box 630554
Baltimore, MD 21263-0554

Applicants will receive written confirmation regarding registration and housing.

CANCELLATION POLICY

Fees for registration and meals will be refunded in full if written notice of cancellation is received by May 15, 1997. No refund will be given for cancellations received after May 15, 1997.

CONTINUING EDUCATION CREDITS

The Summer School has been approved by CAMPEP for a maximum of 26 hours of Medical Physics Continuing Education Credits (MPCEC). Credits will be awarded to medical physicists who participate in the program and submit the required documentation to the Program Director.

THE SUMMER SCHOOL SETTING

Georgetown University (GU), founded in 1789, is the oldest Jesuit college in America. In 1796, George Washington addressed the students from the steps of the Old North Building. The weathered cannons that sailed to the New World in 1634 on the Ark and the Dove now stand before the Healy Building as sentinels of religious freedom. The university's public collections include Mark Twain's handwritten manuscript of Tom Sawyer, and a copy of the Star Spangled Banner autographed by Francis Scott Key. Located on the Potomac River, just west of the Capitol District, Georgetown is both old guard and avant garde. Visitors may avail themselves of museums, art & antiques galleries, a variety of shopping opportunities, and bookstores featuring both new and rare selections. In the evening hours, one may stroll shaded brick walkways adorned with historic homes, or wonderful old alleyways hiding carriage houses emitting the sounds of internationally acclaimed jazz music. There are many excellent places to dine, featuring a variety of ethnic cuisines.

The center of Georgetown is the busy crossroad of Wisconsin Ave. & M Street, highlighted by the gold dome atop Riggs Bank. Inside the bank's vault is the gold & marble gavel used by George Washington to lay the cornerstone of the U.S. Capitol in 1793. Also located on M Street is the Old Stone House, which is believed to be the city's oldest building and only surviving pre-Revolutionary structure. As you tour the area you will notice many cobblestone streets, etched with the tracks of long silent trolley cars. Heading in the direction of the Potomac, there is a very pleasant river walk, along the C & O Canal towpath which is accented with flowers, fountains, and whimsical sculptures. Here you will be provided with a spectacular view of Washington Harbor and also have access to an international array of restaurants.

Among the many other visitor attractions are the Dumbarton House, a distinctive Federal mansion which displays eight rooms of outstanding nineteenth century English and American decorative arts, furniture, silver, and paintings, and The Dumbarton Oaks Museum which celebrates the Maya and Inca cultures, and also has a fine collection of Byzantine art. Tudor Place is an elegant Federal mansion, which is second only to Mount Vernon in its collection of Washington family treasures. The mansion conveys a rich Tudor tapestry spanning nearly two centuries of the Peter-Custis family.
1997 AAPM SUMMER SCHOOL
1997 AAPM INTERNATIONAL SUMMER SCHOOL
The Expanding Role of Medical Physics in Diagnostic Imaging
Georgetown University • Washington, DC
June 22 - 26, 1997

This summer school is jointly sponsored by the European Federation of Organizations for Medical Physics

△ LODGING △

Accommodations are available on campus in the Village C complex, Harbin Residence Hall, and Copley Residence Hall, all within easy walking distance of the conference venue and dining facilities.

Residence hall rooms in Village C are double occupancy rooms furnished with two twin beds, desks, chairs, and wardrobes. Each has a private bath and an individually-controlled air-conditioning unit. Each room is equipped with a telephone. Linens, towels, pillows, and blankets are provided along with daily towel exchange and trash removal.

A typical Harbin Hall room contains two twin beds, built-in desks and bookshelves, and built in wardrobes. Each room is air conditioned. There are no private bathrooms; single sex bathrooms are located on each floor. Telephones are not provided in rooms. Linens, towels, pillows, and blankets are provided along with daily towel exchange and trash removal.

Attendees who select to be housed in either Village C or Harbin Hall will have the option of either sharing a room with a fellow attendee or reserving a private room. If a private room is requested, the cost of the private room is double the cost of a shared room. (See Registration Form for costs).

Copley Residence Hall was renovated in 1995. The residence hall has gothic characteristics and wide corridors. A lounge and kitchen are located on all floors except the ground level. Rooms are arranged as suites with two double occupancy rooms sharing a bath. All rooms are furnished with 2 desks, dressers, beds, built-in closets, carpeting and air conditioning. Telephones are not provided in rooms. There is limited availability for suites and they will be assigned to families first.

Laundry facilities are located in most residence halls and apartment complexes. Magnetic debit cards, which can be purchased at the Leavey Center or in Village C, are required to operate the machines.

Attendees are advised to bring personal alarm clocks.

Check-in: Saturday, June 21 after 4:00 p.m.
Check-out: Friday, June 27 by 10:00 a.m.
Luggage storage: Available for early arrivals on Saturday, June 21 and departures on Friday, June 27.

MEALS

The New South Cafeteria will serve all meals to summer school registrants beginning with breakfast on Sunday, June 22 and continuing through dinner on Thursday, June 26. You’ll enjoy a salad bar, fresh baked goods and featured entrees including vegetarian. All scientific registrants residing on campus must purchase meal tickets. Attendees residing off campus and companions may elect to purchase meals at cost (Costs per meal: breakfast $6.20, lunch $7.30, dinner $8.45). Attendees residing off campus and companions may also choose to dine at the food court or other restaurants located in the Leavey Center.

➔ TRAVEL INFORMATION ➔

Airlines and Airport Information: Washington, D.C. is served by three major airports, Baltimore/Washington International (BWI) in Maryland, Washington National Airport in D.C., and Washington Dulles International Airport in Virginia. National Airport is recommended as your destination for its convenience to GU.

Association Travel Concepts: As an attendee of the 1997 Summer School, 5-10% off the lowest fare is available by simply calling Association Travel Concepts. You will automatically be entered into a drawing to win two round-trip United Airlines tickets, in addition to the already discounted travel, if you book your travel through ATC. (See Association Travel Concepts advertisement for details.)

Ground Transportation: At each airport there is a
choice of taxi, shuttle or subway connection (except at BWI) for transportation to GU. You must arrange your own transportation. From National Airport the most convenient transportation is by taxi (cost approx. $12) and the most economical is by subway (MetroRail) and the Georgetown University Shuttle bus (GUTS) (cost < $5). Detailed directions will be provided in the confirmation packet which will be mailed following receipt of registration materials.

**Rail:** Union Station is your recommended destination. From Union Station take a taxi to GU (cost approx. $15) or use the subway and GUTS shuttle bus (cost < $5). Detailed directions will be provided in the confirmation packet which will be mailed following receipt of registration materials.

**Driving to Georgetown:** Detailed directions will be provided in the confirmation which will be mailed following receipt of registration materials.

**Parking:** GU is an urban campus and **limited parking** is available. Weekly parking is available at $40.00 per week in Lot 3, which is adjacent to university housing. Daily parking is available both at the Leavey Center parking garage and at Lot 3 at $12.00 per day (payable upon exiting Leavey Center or at the Lot 3 gate). Purchase of a weekly parking pass for Lot 3 is advised, which may be obtained by filling out the appropriate section of the registration form. Passes which are preordered will be available at check-in on Saturday, and on Sunday for late arrivals.

**OFF CAMPUS LODGING**
Registrants are encouraged to stay on campus. For those desiring to stay off campus, a list of hotels and their phone numbers is given. Please be aware that the Summer School has made no arrangements with these hotels for special rates or transportation. It is the responsibility of the individual to arrange transportation to and from GU. All buses for AAPM social events will be departing from GU/Village C.

**Located on GU campus:**
- Marriott 202-687-3200

**Off Campus:**
- ANA Hotel 202-429-2400
- Four Seasons Hotel 202-342-0444
- Georgetown Dutch Inn 202-337-0900
- Georgetown Inn 202-333-8900
- Georgetown Suites 202-298-7800
- Latham Hotel 202-726-5000
- Park Hyatt 202-789-1234
- Residence Inn by Marriott 202-298-1600
- Watergate Hotel 202-965-2300
- Wyndham Bristol Hotel 202-955-6400

**WEATHER AND WARDROBE**
Summers in Washington, D.C. are known to be “hot and humid.” Lightweight clothes are suggested for both day and evening. Pack a light rainjacket, swimwear, hats and sunscreen. Rainfall is always a possibility.

**RECREATIONAL FACILITIES**
The on campus recreational facility available to attendees is Yates Field House. Scientific attendees have the option of purchasing a weekly pass for $10.00. This fee is automatically covered in the registration fee for all companions 5 years of age and older. The pass entitles attendees to the use of the swimming pool, tennis courts, basketball courts, aerobic classes, weight machines and stationary equipment, and both indoor and outdoor tracks. There is a pro-shop located in Yates Field House that sells Georgetown apparel and athletic equipment.

Off campus, attendees may enjoy renting a canoe or row boat at Fletcher’s Boat House for a cruise on the Potomac River or enjoy a walk or run on the Chesapeake and Ohio Canal Towpath located minutes from the campus. Directions will be provided on site.
COMPANIONS' PROGRAM

Tour programs and transportation will be managed by On-Site Productions, Inc., an excellent event planning and destination management company located in Washington, D.C. During the Summer School, there will be a tour program offered daily from Sunday, June 22 through Thursday, June 26. Enjoy the historic capital of Annapolis, or visit exciting Baltimore where you can explore the National Aquarium, shop at the fashionable Inner Harbor, and dine on Baltimore’s world famous crab cakes, or travel to Mount Vernon, Virginia, home of George Washington. Buses will be provided for the tours and will depart from GU near the Village C complex next to the security office on Prospect Street, N.W.

To ensure space, advance registration for these tours is required and all reservations must be made before May 30; any tours that do not have the minimum number of registrants by May 30 will be canceled.

Participants who have purchased the Georgetown meal ticket will be served a box lunch for each tour reserved. Please be advised, children under the age of 3 are allowed free of charge on the tour bus but must be placed on the lap of an adult while in transit.

CHILD CARE

Parents may arrange babysitting through the GU Employment Referral Service (ERS) Student Temporary Pool by contacting their office at (202) 687-4187 between 9:00 a.m. and 5:00 p.m. Monday through Friday. Please note that the ERS acts only as a clearinghouse for information about jobs in the Washington metropolitan area but does NOT screen students for any particular jobs. They verify that individuals using their services are currently enrolled Georgetown students by checking the student I.D. cards. They expect the employer to interview and screen applicants and to check references where appropriate.

The ERS-Student Temporary Pool is a branch of the Employment Referral Service that refers GU students to employers who need temporary help. Students who are registered with their Child Care Pool provide the ERS with information about their availability and experience. When a parent calls, the ERS provides the names of five students whose availability and experience match the parent’s requirements. If the first five students are not available, they will provide the names of five more students. Due to the limited availability of students during the summer months, students are under no obligation to accept positions and therefore, no guarantees can be made regarding child care.

Please be advised, by accepting this service, individuals agree that neither the AAPM nor GU can be held responsible for any damage or injury to persons or property in connection with the ERS service, regardless of the cause.

TUESDAY OUTINGS

The highlight of every Summer School is the Tuesday Night Out. This year attendees will enjoy a serene and scenic cruise aboard the Spirit of Washington. Motor coaches from GU will transport attendees and registered companions to the heart of Washington’s waterfront where the Spirit of Washington will welcome you aboard! The cruise will offer a unique waterborne perspective of the city sights and historic monuments of Washington. Also seen will be the colonial homes and quaint streets of Old Town Alexandria, the Torpedo Factory, Fort McNair and Washington National Airport from the open-air decks or from the comfort of the enclosed decks.

A sumptuous buffet dinner will be served, followed by entertainment from the waiters and waitresses performing rousing renditions of show tunes in the “Broadway Revue.” You can then dance to the lively music of the band. Two beer, wine and soda drink tickets will be provided per person. Cash bar available.
SUMMER SCHOOL TALENT SHOW

The 1996 AAPM Summer School Talent Show was a great success and 1997 can be even better. Every attendee, young or old, companion, and youth is invited to be a part of this great event. We even expect to have prizes for the best amongst us. Your talent can be serious (violin solo, singing, etc.), comical (LAC skit, dying dog), or outrageously funny (so you think you can sing, ever get a second opinion?). Just come to the Summer School, prepared to do your thing. We will be soliciting throughout the week and the big event will be Wednesday evening at 8:00 p.m. Although we have only been allotted an hour, we will turn down NO serious offer (and all offers are serious)!

UPON ARRIVAL

Upon arrival at 4:00 p.m. on Saturday, June 21, proceed to your dorm to check in with Georgetown’s housing personnel to receive your room assignment. Once you get settled, make your way to the Summer School registration area. Registration will be held in the Intercultural Center Galleria from 4:00 p.m. - 9:00 p.m. After you have registered, join other participants for an Icebreaker reception to be held from 7:00 p.m. - 9:00 p.m. in the Intercultural Center Galleria. A light meal will be served at the reception. You must register first in order to enter the reception.

Summer School sessions will be held in the Preclinical Science Building (Rooms LA4 and LA6). Please see the campus map for location of facilities.
COMPANION’S PROGRAM

On-Site Productions tours are pleased to offer you Sightseeing Tours of Washington, D.C. and the surrounding area. All tours are fully narrated and escorted. For your convenience, tours will depart Georgetown University near the Village C complex at a designated location next to the security office on Prospect Street, N.W. To ensure space, advance registration for these tours is required and all reservations must be made before May 30; any tours that do not have the minimum number of registrants by May 30 will be canceled. Participants who have purchased the Georgetown meal ticket will be served a box lunch for each tour reserved. Please be advised, children under the age of 3 are allowed free of charge on tour bus but must be placed on the lap of an adult while in transit.

OPTIONAL TOURS

TOUR #1  WELCOME TO WASHINGTON
Sunday, June 22  (1:00 pm - 5:00 pm)
This introductory tour features our Capital’s venerable monuments and power institutions. Today you will ride by the White House, FBI Building, Capitol, Smithsonian Complex, Lincoln and Jefferson Memorials, Kennedy Center, Treasury Building and more. The most favorite stop is the Lincoln/Vietnam Memorial. Time permitting, another stop can be made at Arlington Cemetery. In inclement weather, substitution stops can be made, such as one or more of the Smithsonian Museums, or the newly renovated Union Station designed after a two thousand year old Roman Bath.
Price: $18.00 per person based on a minimum 40 people per motor coach

TOUR #2  THE COLONIAL PAST
Monday, June 23  (10:00 am - 4:00 pm)
Visit Mt. Vernon, the treasured estate of George and Martha Washington. This 30 acre plantation has been lovingly restored to the way it appeared in the last year of George Washington’s life, with an elegant mansion, beautiful gardens, serpentine walks, day to day domestic out-buildings, slave burial grounds, the tombs of George and Martha, and more.
Then visit Old Town Alexandria where you will have time to walk the historic streets and shop or stop at an eatery.
Price: $32.50 per person based on a minimum 40 persons per motor coach (includes all admissions)

TOUR #3  WASHINGTON CATHEDRAL AND EMBASSY ROW
Tuesday, June 24  (1:00 pm - 4:00 pm)
Planned by George Washington, The Washington National Cathedral crowns 57 acres at the city’s highest point. The sixth largest in the world, the Cathedral is probably the last pure Gothic construction in the world. Today you will travel along Embassy Row and see the magnificent embassies and elegant homes en route to this breathtaking structure. As you walk through this 1/10 of a mile house of prayer, you will see the tombs of Helen Keller and Woodrow Wilson, the pulpit where Martin Luther King delivered his last speech and outstanding stain glass windows, one housing a piece of the moon. Next visit the medieval walled Bishop’s Garden, the Herb Cottage, and the museum and gift shops.
Price: $21.00 per person based on a minimum 40 people per motor coach
TOUR #4  
**CAMELOT ON THE BAY**

Wednesday, June 25  
(10:00 am - 4:00 pm)

In 1786, delegates from five states met in convention in Annapolis to discuss measures to strengthen the Union. This idea for convention, resulted in the Federal Constitutional Convention of 1787 in Philadelphia. Today, Annapolis is affectionately nicknamed Camelot on the Bay by the *National Geographic*, and is recognized by many as America’s sailing capital.

Today, a stroll through the historic area where James Monroe walked on his way to see the Maryland State House to participate in the signing of the Treaty of Paris. You will see the State Capitol and visit the United States Naval Academy. Visit the beautiful Hammond Harwood House. The only verified full scale example of the work of William Buckland, Colonial America’s most prominent architect. Then stroll down to the famous Annapolis harbor and enjoy a dockside lunch on your own. Time will be provided for shopping in the historic district.

Price: $30.00 per person based on a minimum 40 people per motor coach (includes all admissions)

TOUR #5  
**BALTIMORE: A CITY REBORN**

Thursday, June 26  
(10:00 am - 4:00 pm)

Today visit Baltimore, less than one hour north of Washington. The city of Baltimore has experienced a revitalization comparable to no other.

First, explore Baltimore’s many diverse neighborhoods, including Mt. Vernon Square, Fells Point and Charles Street. You will see the historic residences of Baltimore’s earliest prominent, H.L. Mencken House, Mount Clare Mansion and the Mother Seton House, as well as beautiful city parks and churches.

Next, on to Baltimore’s breathtaking Inner Harbor, where you can visit the brick lined promenade along the water’s edge which leads past multi-storied shopping and dining pavilions, historic ships and the National Aquarium. Here, lunch on your own overlooking this spectacular setting. Later, visit the National Aquarium, home of more than 5,000 specimens of aquatic life, including sharks and dolphins. Enjoy a host of educational presentations such as the Dolphin Show in the spectacular Marine Mammal Pavilion.

Time permitting, you will complete your day away by visiting the B & O Railroad Museum, the oldest railroad station in the U.S. and birthplace of B & O Railroad.

Price: $43.00 per person based on a minimum 40 people per motor coach (includes all admissions)

**DEADLINE FOR SIGNING UP FOR TOURS:** MAY 30, 1997

On-Site Productions, Inc., reserves the right to make substitutions if necessary. The organizers of this tour act only as agents and contractors, providing transportation and other services. Participants by accepting this service, agree that neither On-Site Productions, Inc., nor the AAPM can be held responsible for personal injury, illness, or death in connection with the services or any conveyance used in this tour, nor are they responsible for delay, accident or damage to, or loss of, personal property, or for additional expense due to weather or other causes beyond their control.
# 1997 AAPM SUMMER SCHOOL

**1997 AAPM INTERNATIONAL SUMMER SCHOOL**

*The Expanding Role of Medical Physics in Diagnostic Imaging*

*Georgetown University • Washington, DC*

*Sunday, June 22 - Thursday, June 26, 1997*

## REGISTRATION FORM

### SCIENTIFIC ATTENDEE

<table>
<thead>
<tr>
<th>LAST NAME</th>
<th>FIRST NAME</th>
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<th>DEGREE</th>
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<tr>
<th>FACILITY</th>
<th>NICK NAME FOR BADGE</th>
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<thead>
<tr>
<th>ADDRESS</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>CITY</th>
<th>STATE</th>
<th>ZIP</th>
<th>COUNTRY</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>BUSINESS PHONE</th>
<th>FAX</th>
<th>RESIDENCE PHONE</th>
</tr>
</thead>
</table>

**ARRIVAL DATE:**

- **Check-In 4 PM**
- **Month/Day**

**DEPARTURE DATE:**

- **Check-Out 10 AM**
- **Month/Day**

### PLEASE CHECK ALL THAT APPLY:

- □ AAPM Member
- □ Scholarship Applicant
- □ Faculty
- □ LAC

- □ Please check here if you have any special needs or requirements and attach a letter describing needs.

### COMPANIONS

<table>
<thead>
<tr>
<th>Companions 18+:</th>
<th>Youth and Children: (17 - under)</th>
<th>AGE</th>
</tr>
</thead>
</table>

### CANCELLATION POLICY

Fees for registration and meals will be refunded in full if written notice of cancellation is received by May 15, 1997. No refund will be given for cancellations received after May 15, 1997.

### TOTAL FEES

See back of form for breakdown of fees:

- Total Registration Fees $________
- Total Meal Fees $________
- Total Housing Fees $________
- Total Tour Fees $________
- Total Parking Fees $________

**TOTAL FEES DUE** $________

### PAYMENT

Registrations will not be processed until full payment is received. Send completed form with payment to:

**AAPM • P.O. Box 630554 • Baltimore, MD 21263-0554**

- □ MasterCard
- □ Visa
- □ Check *(Payable to AAPM in US dollars drawn on US bank)*

<table>
<thead>
<tr>
<th>Credit Card Number</th>
<th>Expir. Date</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Month/Year</th>
</tr>
</thead>
</table>

Cardholder’s Signature: __________________________ Date: __________________________
**REGISTRATION FEES**

| AAPM Member Registration: Includes ticket for the Night Out | | |
|------------------------------------------------------------|---------------------------------------------------|
| □ Discounted -- thru April 30 $ 655 $_______               | □ After April 30 $ 755 $_______                  |
| Non AAPM Member Registration: Includes ticket for Night Out | | |
| □ Discounted -- thru April 30 $ 930 $_______               | □ After April 30 $ 1,030 $_______                 |
| Companions: Includes ticket to Night Out, access to Hospitality Suite & pass to Yates Field House* | | |
| □ Adults and 14 and over _____ @ $ 114 $_______           | □ Age 5 - 13 _____ @ $ 45 $_______                |
| □ Under age 5 NO CHARGE                                   | | |

*applies to companions 5 years of age and older

Registration will close at 450 Scientific Attendees or on MAY 15

**TOTAL REGISTRATION FEES** $_______

---

**HOUSING REGISTRATION**

See room descriptions listed under “Lodging.”

<table>
<thead>
<tr>
<th>ROOM TYPE</th>
<th>WEEKLY RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Village C</td>
<td>$ 150</td>
</tr>
<tr>
<td>Village C</td>
<td>$ 300</td>
</tr>
<tr>
<td>Harbin Hall</td>
<td>$ 114</td>
</tr>
<tr>
<td>Harbin Hall</td>
<td>$ 228</td>
</tr>
<tr>
<td>Copley Hall</td>
<td>$ 480</td>
</tr>
</tbody>
</table>

**TOTAL HOUSING FEES** $_______

---

**ROOMMATE REQUEST:**

If you would like to share a room or an apartment with a particular registrant or registrants (other than companions), please indicate below:

NAME

<table>
<thead>
<tr>
<th>ROOM</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUITE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
</tbody>
</table>

---

**WEEKLY PARKING PASSES**

<table>
<thead>
<tr>
<th>Lot 3 only:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>________ @ $40 each $_______</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL PARKING PASSES** $_______

---

**MEAL TICKETS**

All Scientific Attendees that are staying on campus MUST purchase a meal ticket. Attendees residing off campus and Companions have an option of purchasing meals for a set fee per meal in the cafeteria or purchasing a meal ticket. Meal tickets are valid from breakfast on Sunday thru dinner on Thursday.

<table>
<thead>
<tr>
<th>Scientific Attendee</th>
<th>$ 105</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companions (OPTIONAL ticket)</td>
<td>________ @ $ 105 $_______</td>
</tr>
</tbody>
</table>

**TOTAL MEAL FEES** $_______

---

**COMPANION’S PROGRAM TOURS**

Deadline date for registering for tours is MAY 30; if you would like to register for a tour following the meeting registration deadline of MAY 15, please contact AAPM headquarters.

<table>
<thead>
<tr>
<th>TOUR #1</th>
<th>________ ticket @ $18 $_______</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOUR #2</td>
<td>________ ticket @ $32.50 $_______</td>
</tr>
<tr>
<td>TOUR #3</td>
<td>________ ticket @ $21 $_______</td>
</tr>
<tr>
<td>TOUR #4</td>
<td>________ ticket @ $30 $_______</td>
</tr>
<tr>
<td>TOUR #5</td>
<td>________ ticket @ $43 $_______</td>
</tr>
</tbody>
</table>

*(Children under the age of 3 are allowed free of charge on tour bus but must be placed on the lap of an adult while in transit.)*

**TOTAL TOUR FEES** $_______