

IAS/PARK CITY
MATHEMATICS
INSTITUTE (PCMI)

INFORMATION and POLICIES

19th Annual Summer Session
June 28-July 18, 2009

Prospector Square Lodging and
Conference Center
Park City, Utah



The IAS/Park City Mathematics Institute
is a program of the
Institute for Advanced Study
Einstein Drive, Princeton, New Jersey.

Topics are arranged alphabetically.
Please bring this information booklet with you to the Summer Session.
The use of the word "Participant" includes registered participants,
program lecturers and organizers.

►AIRPORT SHUTTLE

Participants make their own shuttle reservations.

Participants whose travel is funded by PCMI should reserve their Utah airport shuttle via **Park City Transportation Co.** Instructions are included in this mailing and posted on the PCMI website at www.ias.edu/parkcity.

Participants not funded by PCMI for travel are welcome to take advantage of PCMI's special group rate of \$51.00(USD) roundtrip for ground transportation via **Park City Transportation Co.** Instructions are available in this mailing and posted on the PCMI web site at www.ias.edu/parkcity.

► ALTITUDE

The altitude in Park City is 6,900 feet above sea level; it is possible that a few participants may experience the discomfort associated with altitude sickness. It is suggested that you not do anything strenuous for the first 24 hours after arrival and that you **drink plenty of water**. Symptoms of altitude sickness may include headache, fatigue and nausea. It is usually short-lived and harmless; however, if you have fever or prolonged or severe symptoms, you should seek medical attention (see Medical Services section of this booklet for information about local services).

►ANNOUNCEMENTS AND MESSAGES

Announcements regarding schedule changes, activities, etc. will be posted on the bulletin boards located in the main Conference Center building. Also posted will be messages to individual participants.

►ARRIVAL

Participants who are attending the entire three weeks should plan to arrive in Park City on Sunday, June 28, between 1:00 p.m. and 7:00 p.m. in order to attend their program's Opening Social and to receive their ID badges and Registration materials.

Participants (mainly research program participants and guests) arriving after June 28 should plan to be in Park City the day before they start participating in the program. Come to the PCMI office to pick up your ID badge and registration materials on the morning of the first business day after your arrival.

A note about checking in to your PCMI-funded lodging: PCMI-funded lodging is at Prospector Square and in surrounding condo buildings that are managed by other companies. On June 28th, all of our property management companies will be staffed around the clock. As of June 29th, most will be staffed only until 5:00 p.m. on weekdays and not at all on weekends. Checking in to lodging may require you to follow instructions for "after-hours check-in" (found on the Prospector Square front door). The "after hours check-in" instructions are not complicated, but you should be aware of this procedure when planning your travel and you should be aware that you may have to carry your luggage a block or so to arrive at your destination.

►BUS SERVICE

Park City has a free bus service that travels all over the town, up into Deer Valley and down to the factory outlet shops at Kimball Junction. Bus stop signs are located along the side or front of the Prospector Square Lodging and Conference Center. Buses leave approximately every 20 minutes, and schedules should be available at PCMI registration.

CHECKING IN

See the "Arrival" section.

►CHILD CARE

A list of possible child care options has been compiled by the PCMI office and is available upon request. Please note that PCMI does not make any recommendations regarding child care.

►CLOTHING

Dress at PCMI is casual, although shirts and shoes must be worn in the Conference Center building at all times. Every effort is made to make the meeting rooms comfortable; as individual needs will vary, you should bring a sweater or jacket for those rooms that feel too cold. We suggest you bring appropriate layers of clothing to accommodate changing weather (see section on Park City for climate information)

► COMPUTER SERVICES AND LAB

PCMI provides a temporary computer lab and wireless network for the duration of the Summer Session. PCMI's server will host a 'wiki' style site as well, for the exclusive use of PCMI participants during the Summer Session.

Lab Location and Equipment

Coalition 3 (in the main foyer of the conference center). The lab contains 5 desktop computers, 5 laptops, and 10 Ethernet ports.

Platforms in the lab:

- PC, Mac, and Linux

Software in the Lab:

- MATLAB
- Maple
- Geometer's Sketchpad
- Fathom
- TeX
- Adobe Acrobat Standard
- MS Office
- Internet Explorer
- Netscape

Lab Opening & Closing dates

Opens: Monday, June 29 at 8:00 a.m.
Closes: Friday, July 17 at 6:00 p.m.

Lab Hours

Open all day and into the evening. The wireless hub is in operation 24/7 in the Conference Center.

Lab Staff hours

8:00 am – 5:00 pm M–T–Th–F, 8:00 am – 3:00 pm on Wednesdays.

Wireless Network

The range extends throughout the main conference center building and into the parking lot behind the building (it does not extend to the sleeping rooms). Use of the Wireless Network is free to all participants. We ask that you do not download or email excessively large files. (Please note that most of the condo buildings now have their own wireless internet for the use of guests, however you must be in the conference center or in the PCMI tent in order to access the PCMI network, wiki and server.)

General Information

E-mail and Internet access through the PCMI network is free. The lab is available for general use part of each day. Occasionally there are class meetings in the lab.

Please note that this lab is a temporary set-up in a hotel meeting room using hotel tables and chairs.

Do not install your own software on the lab's computers, and never copy software from the lab. Do not save your work on any of the lab's computers – use a flash drive.

►CONFERENCE CENTER

The Prospector Square Conference Center is a modest facility in the Prospector Square neighborhood of Park City. All meeting rooms are conveniently located off the main foyer of the conference center building. The PCMI office is temporarily located on the second floor of the conference center.

The main building and front desk are open from 6:00 a.m. to midnight during PCMI. From midnight to 6:00 a.m. the main building is locked and there is no staff at the front desk.

The Conference Center has a small pool and hot tub for the enjoyment of guests – bring your own towels to the pool.

►CONTACT INFORMATION

Postal and shipping

U.S. Postal Service address:

(Your name), Guest
Prospector Square Conference Center
PO Box 681063
Park City, UT 84068-1063

FedEx, UPS, or other delivery address:

(Your name), Guest
Prospector Square Conference Center
2200 Sidewinder Drive
Park City UT 84060

Please note that anything sent via U.S. Postal service must be sent to the PO Box above – the Postal Service does not deliver mail to street addresses in Park City. Also note that mail sent to Park City through the U.S. Postal Service can be slow.

Telephones

The telephones in the sleeping rooms are for local calls; there may be a hotel fee charged for their use.

Message Center

There will be bulletin boards for messages and announcements located in the main Conference Center building. We encourage you to check these boards at least twice a day since there is generally not time for announcements to be made during classes or programs.

►COPYING

Copying for the program is done in the PCMI office by a PCMI staffperson; the office is open from 8:00 a.m. to 5:00 p.m., Monday, Tuesday, Thursday, and Friday; 8:00 a.m. to 1:00 p.m. on Wednesdays (see the *PCMI Office* section of this document for exceptions to these hours). No copying can be done on weekends. Personal copying may be done for a fee.

Teaching Assistants and other personnel who are responsible for program copying should note that **24 hours notice** is needed to process your orders.

►DAILY OPERATION

What should you expect on a typical day at PCMI? Breakfast is available from 7:00–8:15 a.m. in the Moose and Miner Room at the Grub Steak Restaurant, across the street from the front desk of Prospector Square Conference Center. The day's courses and seminars start at 8:30 a.m. (8:20 a.m. for the Secondary School teachers). Daily schedules are posted in the Conference Center and available for you to take from the table in the foyer. All programs break for lunch around 12:00 noon, resuming again as early as 1:00 p.m. Lunch is served in the PCMI tent. The Cross Program Activity, which is for all participants, takes place at 3:15 p.m. in the Grand Theater. Afternoon tea is available in the foyer after the Cross Program Activity. There are occasional evening activities that are intended to be voluntary.

Note: For both programmatic and security reasons, your ID badge is required to be worn at all meals and PCMI sessions/activities.

►DRIVING TO PCMI

Participants who elect to drive to PCMI and who are eligible for travel reimbursement will be reimbursed at the current government-approved rate, up to the cost of a comparable round trip airline ticket or \$500 USD, whichever is less. See Financial Information below for the kind of documentation that must accompany your request for reimbursement.

►DEPARTURE

PCMI ends at 5:30 on Friday, July 17th. You should plan to depart on Saturday, July 18th, at any time. Be sure to reconfirm your shuttle reservation before your day of departure so that there are no complications getting to the airport.

►FINANCIAL INFORMATION

Stipend Checks issue date

Undergraduates' and Secondary Teachers' stipend checks will be issued at the end of the Summer Session – on Friday, July 18th. Participants should plan accordingly.

Participants receiving a stipend will be asked at Registration to sign a form certifying their status as a US Citizen or US Permanent Resident.

Reimbursements

Reimbursement requests must be supported by appropriate documentation. With rare exceptions, all documents must be original receipts.

Airline travel: please obtain an original Passenger Receipt at the airport when you check-in for your flight. If you made your flight arrangements through a travel service such as Travelocity or your local travel agent, please be advised that your confirmation email from the travel service is not sufficient documentation for reimbursement. When you check in at the airport, request the Passenger Receipt. Please note that photocopies are not permissible and no reimbursement can be issued without the original airline-issued documents.

Mileage driven to and from PCMI: the required supporting documentation is a set of printed driving directions (from Yahoo!, Google, or Mapquest.com) that indicates the addresses of the starting point and the endpoint, explicitly stating the mileage between the two points.

All reimbursement requests will be processed as quickly as possible, and we will make every effort to expedite requests when possible. However, please note the following considerations: 1) checks are issued by the Institute for Advanced Study in New Jersey on a weekly basis, and 2) summer staffing considerations and the fiscal year workload at the Institute may cause a delay in processing of checks for PCMI participants. We apologize for any confusion or inconvenience.

Cash

All participants should come to PCMI with any necessary cash, travelers checks, and ATM cards so that you have ready access to cash. There are numerous ATM machines throughout Park City that will accept ATM cards from the major networks (such as Star or PLUS). Most charge a small fee per transaction.

Check Cashing

Participants who were awarded a meal allowance will receive their checks upon arrival at PCMI. The local office of Frontier Bank in Park City is able to cash meal allowance checks that have been issued by PCMI. A \$3.00 fee will be charged by the bank and you must present a government-issued photo I.D. to the bank teller.

(Participants who were awarded a stipend will receive those checks at the end of PCMI, on Friday, July 18th.)

Wire Transfer

A handling fee of \$50 USD will apply to any funds transmitted from PCMI via wire transfer.

► FITNESS

The Silver Mountain Spa is located next door to Prospector and is offering temporary one-month memberships to PCMI participants for a fee of \$85 per person. The membership entitles you to attend classes, use the weight and cardio equipment and the pools, sauna, hot tub, etc. See the health club staff at the Silver Mountain Spa's front desk if you are interested in joining – tell them you are in Park City with the "Math Institute."

► FOOD SERVICE

PCMI provides breakfast and lunch for all registered participants on all 15 weekdays of the Summer Session. Breakfast and lunch are considered an important part of the interaction that makes PCMI unique among professional development conferences.

In all circumstances please note that food buffets are **not** "all you can eat" service – take one moderately sized portion so that there is enough food for everyone!

Meals at PCMI are for registered participants: family members or guests in residence with participants should make alternative arrangements for breakfast and lunch. Exception: the opening and closing dinners, to which family members are very welcome.

Assigned seating: Once or twice a week the seating at lunch may be assigned so participants have the opportunity to get to know each other across programs. We appreciate your cooperation.

Your ID badge doubles as your meal ticket and is required to be worn at all meals. Badges will be checked. Participants without badges will be turned away from the meal.

Meals provided: Breakfast and lunch, Monday through Friday, plus the opening dinner on Monday, June 29 and the closing dinner on Thursday, July 17; the meal plan begins with breakfast on Monday, June 29 and ends with lunch on Friday, July 17.

Breakfast Information

Location: the Grub Steak Restaurant (across the street from the Prospector Square Lodging); enter through the door situated across the street from Prospector Square's front lobby.

Hours: 7:00–8:15 a.m. (The restaurant cleans and re-sets the room at 8:15 a.m. – please plan your schedule accordingly so that you are finished eating in time.)

Menu will alternate on a day-to-day basis between hot and cold breakfasts:

- 1) Cold breakfast includes juice, coffee, tea, cold cereals, yogurt, fruit, and baked goods.
- 2) Hot breakfast includes eggs, breakfast meat, potatoes, baked goods, juice, coffee, tea.

Lunch Information

Location: the PCMI dining tent (behind the main Conference Center building).

Hours: 12:00 to 1:15 p.m.

Menu selections include a meat-based buffet of entrée and side dishes and a vegan entrée (see below)

Vegan option: a limited amount of the vegan entrée is available each day at lunch and **must be reserved in advance** – please let the PCMI office know that you prefer vegan. Funding considerations do not allow participants to switch back and forth between meat and vegan on a daily basis – you must make your choice for the entire three weeks of the Summer Session before you arrive at PCMI, and let the PCMI staff know. Your ID badge will have a sticker on it that indicates you have reserved the vegan entrée in advance. Otherwise, you will be expected to select your lunch from the meat-based lunch buffet.

Dinner Information

PCMI will host two dinners during the Summer Session. All participants, their guests and families in residence at PCMI are invited to attend. The opening dinner will be Monday, June 29, and the closing dinner will be Thursday, July 17. A cash bar will be available at the closing dinner. Evenings are often cool, so we recommend that you bring a sweater or jacket. Please wear your ID badge to both dinners.

Refreshments

Coffee and tea are available all day in the Conference Center (weekdays only). Cookies will be served in the foyer outside the Grand Theater at 4:15 p.m., following the Cross Program Activity on Mondays, Tuesdays, Thursdays, and Fridays.

Cooking for yourself

There are two grocery stores within walking distance of the Conference Center. If you are staying at PCMI for more than one week, there will be a small kitchen in your condo unit. In addition, the conference center has a picnic area with tables and charcoal grills at the back of the main property.

►HOUSING

PCMI-funded housing begins on Sunday, June 28 and ends on Saturday, July 18.

Funded participants will be housed in studios and condominiums at the Prospector Square Lodging and Conference Center and in the surrounding area. All assigned rooms will be within walking distance of the conference center or will be accessible by using the free Park City bus. Sheets and towels will be provided. The housekeeping staff will clean the rooms at Prospector Square once a week. If you are staying at an off-site condo arranged by PCMI, housekeeping information will be given to you at Registration.

Damages: Please inspect your room for damage upon arrival and report it to the Front Desk. You may expect to be charged for any damage incurred during your stay.

No smoking: All rooms are non-smoking; there is a substantial fine levied for smoking in your condo unit, bedroom, or in the conference center building. All smoking must be done out of doors, and some properties may require you to stay 25 feet from the building when smoking.

Incidentals: Your credit card will be required at check-in in order to cover phone calls or other incidental charges.

Sharing rooms: If you are housed with a roommate (or more than one roommate), someone may have to use the sofa-sleeper in the unit. Please be considerate of each other and rotate the use of the sofa-sleeper at the time that clean linens are provided (generally, once a week).

Air conditioners and fans: Most condos have air conditioners, although the cooler evening temperatures in Park City are usually quite comfortable for sleeping.

A few of the multi-bedroom condo units and houses do not have central air conditioning; in those units, fans will be provided in all bedrooms and for the main living area.

►IDENTIFICATION BADGES

ID badges are issued at Registration and must be worn throughout the Summer Session, both for security and

programmatic reasons. Your badge also **functions as your meal ticket for all meals provided by PCMI** (see Food Service for more on badges).

►LAUNDRY

The Studio units at Prospector do not have laundry facilities; the 2- and 3-bedroom units generally do. There is usually a laundry room available in the off-site condo buildings (such as Carriage House).

For those who need a Laundromat, there are two located within walking distance of the Conference Center:

The Lost Sock at 1105 Iron Horse Drive;
Ying's Laundromat on 1792 Bonanza Drive.

Ying's is the closest to Prospector Square and is near the intersection of the Rail Trail and Bonanza Drive (when walking up the Rail Trail toward Bonanza Drive, look to your right). *Ying's* also has a "wash and fold" service for an extra fee. *The Lost Sock* is in the industrial complex across Bonanza Drive from the Rail Trail intersection, on Iron Horse Drive.

►LIBRARY

A small library will be located adjacent to the PCMI office, accessible via the back stairs of the main Conference Center. The library is open during PCMI office hours (8:00 a.m. to 5:00 p.m.), closing for an hour at lunchtime each day. Operated on the honor system, circulating books may be checked out with the PCMI office staff, to be returned by 12:00 noon the next business day. Some materials are non-circulating and must remain in the library at all times. We will maintain a binder of class lecture notes for each of the PCMI programs; these binders are non-circulating.

►LIQUOR LAWS

Utah liquor laws are changing soon but the date of that change is unsure. As of this writing, the following regulations and conditions are still in effect in Utah: there are no bars in the state – instead there are 1) restaurants open to the general public in which you must purchase food in order to purchase a drink, or 2) private clubs in which you must be a member in order to purchase a drink; membership is usually purchased at the door for as little as \$5.00 in some cases – similar to a 'cover charge' – and generally is valid for more than one day. (Membership rules vary from club to club.) *If changed as proposed, Utah establishments will no longer have to operate as "private clubs" and will, instead, operate as bars.*

Regardless of where you are, even in your own condo unit: **the legal drinking age is 21**, and we ask that all participants respect the state laws of Utah.

►MEDICAL SERVICES

If you have any medical needs, the **Park City Family Health Center**, is located within easy walking distance of the Prospector Square Lodging and Conference Center. Doctors are available day and night, and can treat anything from colds to broken bones. The Health Center is located at 1665 Bonanza Drive; the telephone number is 1-435-649-7640.

► NOTES FROM LECTURES AND SEMINAR

All registered participants receive lecture notes and other course materials free of charge; materials are distributed by the course assistants. If extra copies are needed, please see the designated Teaching Assistant – he or she will place an order for more copies.

Lecture notes for both Undergraduate Summer School and Graduate Summer School will also be posted on the PCMI website, for viewing, however notes will not be “printable” until after the Summer Session.

► PARK CITY, UTAH

Park City sits at 6,900 feet above sea level. The surrounding mountains, with summits of 10,000 feet, lend themselves to such summer activities as hiking and mountain biking. Salt Lake City, the capital of Utah, lies 30 miles northwest of Park City, about 30 minutes’ drive on Interstate–80.

Park City’s summers are warm and sunny, usually protected from extreme heat by the high altitude. Daytime temperatures are generally in the 80’s, while evening temperatures fall into the 50’s and 60’s. Occasionally, weather patterns in any given summer may be warmer than normal. The average monthly precipitation is only about 1 inch, but brief afternoon downpours, squalls, and thunderstorms are not uncommon.

The air at high altitudes is thin and you can end up with sunburn very easily, even when the day is not particularly sunny or warm. We recommend using sunscreen whenever you are outdoors.

Insects are not usually a problem in Park City itself, but hikers in the mountains or on the trails should use insect repellent and wear appropriate clothing to protect from ticks, mosquitoes, etc.

► PCMI OFFICE

The PCMI summer office is located on the second floor of the main Conference Center building. Office hours will be 8:00 a.m. to 5:00 p.m., Monday, Tuesday, Thursday, Friday, and 8:00 a.m. – 1:00p.m. on Wednesdays.

► RECREATIONAL ACTIVITIES

Despite its small size, the Park City/Deer Valley area offers a multitude of recreational activities: golf, tennis, fishing, hiking, bicycling, water sports, and hot air ballooning, to name some. Nearby stores rent sporting equipment such as mountain bikes. A 23-mile jogging, hiking and bicycling trail runs from Park City to Coalville along the old railroad right-of-way (known locally as The Rail Trail).

In the past, PCMI participants have organized soccer, Ultimate Frisbee, volleyball, or tennis games by posting sign-up sheets on the PCMI Message Center in the foyer of the Prospector Square Lodging and Conference Center. The City Park is a 10-minute walk from the conference center and has sports fields, a volleyball court, basketball courts, and tennis courts. The Prospector Square Lodging and Conference has a small outdoor swimming pool and hot tub. The Silver Mountain Spa next door has two large outdoor pools which are available for a daily fee or with the one-

month membership (see Fitness section). The PCMI office will have a soccer ball and a basketball for borrowing.

There are over 70 restaurants offering many different types of cuisine in Park City, and the town has plenty of opportunities for shopping and entertainment, including performances at the Egyptian Theatre on Main Street and movie nights in the City Park. Many concerts will also be held in Park City and neighboring Deer Valley in July. Contact the Park City Chamber of Commerce at 1-435-649-6100 or visit their website at www.parkcityinfo.com for details. Shopping is also available at the Tanger Outlet Center at Kimball Junction (accessible by car or via the free bus that leaves from the Albertson’s Grocery Store).

PCMI participants can and do organize outings by posting sign-up sheets on the Message Board. Participants are responsible for any costs associated with these outings (which usually are minimal). If a car is required and none is available through a participant, All Resort Express has car rentals and is located less than a block from Prospector Square Conference Center; the cost of a car rental shared among four or more participants is usually quite reasonable.

► REGISTRATION

Lodging check-in: Upon arrival in Park City, please register first for your room at the front desk of Prospector Square Lodge and Conference Center (unless you have been instructed otherwise). You will be required to give a credit card number to be used for any incidental charges (e.g. telephone calls) that occur during your stay.

PCMI Program Registration: Sunday, June 28, from 1:00 p.m. until 8:00 p.m. in the foyer of the Prospector Square Lodging and Conference Center. All participants must come to Registration to pick up your Identification Badge, schedules, computer lab information, and other material, and to have your picture taken (for internal use only). **If you arrive later than 8:00 p.m. on Sunday, June 28th:** see the PCMI staff on Monday morning, June 29th at 7:45 a.m. before proceeding to your first class or session. (You may go to breakfast across the street at the Grub Steak Restaurant first.)

Participants who cannot arrive on Sunday, June 28, should come to the PCMI office in the main Conference Center to register before attending meals, classes or seminars.

All participants are photographed at Registration (a simple “head shot” – nothing fancy). We use these photos only internally and only during the Summer Session for reference purposes only. These photos are deleted and discarded at the end of Summer Session.

A professional photographer will spend a day at PCMI during the Summer Session, taking candid photos of participants to use in our publicity materials and reports to funders. Each participant is asked to sign a photo release form at Registration so that PCMI may use these professionally produced photos (no profit will be made by PCMI on these photographs – they are used solely for reports, fund-raising and publicity materials).

Participants receiving a stipend check from PCMI will be required at Registration to sign a form certifying their status as a U.S. Citizen or U.S. Permanent Resident.

► SCHEDULE

A general schedule and a Summer Session calendar are available online at www.ias.edu/parkcity. Daily schedules are distributed each afternoon (for the subsequent day) and are posted on walls and doors throughout the conference center. Most programs will not have formal sessions on the weekends or on Wednesday afternoons. A schedule for the first day of classes will be distributed with your packet at Registration, and subsequent daily schedules will be available each day of Summer Session.

►SMOKING

By order of the Utah Clean Air Act, all meeting rooms and sleeping rooms in the state of Utah are non-smoking. Smoking is allowed only out of doors, away from the buildings.

►TRAVEL DATES

If you are coming for the entire three weeks of the Summer Session, you should plan to arrive on Sunday, June 28th and depart on Saturday, July 18. Classes and seminars end at 5:30 on Friday, July 17.

For all participants, there are Opening Socials for each program at 7:00 p.m. on Sunday, June 28th. Light refreshments will be served.

►A MESSAGE FROM THE STAFF

We're looking forward to meeting you, and hope the 2009 PCMI Summer Session is a challenging and rewarding experience for you! Please don't hesitate to contact the PCMI office if you have any questions. We can be reached at 1-800-726-4427 or email us at pcmi@ias.edu.

*Catherine Giesbrecht
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The Institute *for Advanced Study*

and

The IAS/Park City Mathematics Institute

gratefully acknowledge major funding from:

The National Science Foundation:

EHR-0314808

DMS-0437137

ESIE-0554309

with generous support from:

The Clay Mathematics Institute

The George S. and Delores Doré Eccles Foundation

Mr. And Mrs. Charles Jaffin

Mathematical Sciences Research Institute

The National Security Agency

The Starr Foundation

The State of New Jersey

The Wolfensohn Family Foundation

and special thanks to:

The University of Utah Department of Mathematics

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