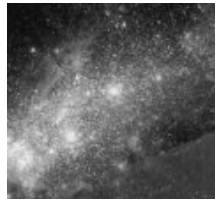
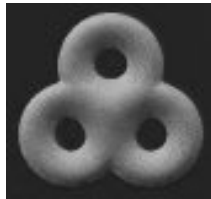


Perimeter Institute for Theoretical Physics presents:  
***Einstein Plus: International Teachers' Workshop***  
on Modern Physics 2007

**July 2 to July 7, July 9 – July 14 and July 16 to July 21**



*"It is enough if one tries merely to comprehend a little of this mystery every day." — Albert Einstein*

- How can you make modern physics accessible to your students?
- What deep insights and enduring understandings should you teach your pupils when it comes to this field of endeavour?
- How does modern physics play a key role in technologies such as the Global Positioning System?
- What innovative teaching strategies can you employ to improve *all* of your classes?

### **What is Einstein Plus?**

Einstein Plus is a week-long intensive workshop for high school teachers on the wonders of modern physics and innovative teaching strategies for all areas of physics; modern or otherwise. During the week, you will:

- Discuss and be given *classroom-tested* resources on modern physics relevant to most high school curricula
- Hear about some of the very latest developments in theoretical physics from world-class experts at the forefront of research
- Learn about innovative teaching techniques applicable to all of your classes.

### **What topics will be covered?**

The syllabus of Einstein Plus will cover many key areas of modern physics and include the following topics with curriculum connections:

- Special relativity: Postulates of special relativity, time dilation, length contraction, and paradoxes (such as the twin paradox)
- Aspects of general relativity: Global Positioning System
- Quantum physics: Photoelectric effect, double-slit experiment, polarization
- Cosmology: Dark matter as an application of uniform circular motion and Newtonian universal gravitation



In addition to covering the material above, during Einstein Plus you will also be exposed to a number of the hottest topics at the forefront of research in theoretical physics. Some of these areas will be explained by world-class Perimeter Institute researchers via a series of presentations on selected areas from Perimeter Institute's fields of expertise: quantum computing, quantum teleportation, entanglement, quantum gravity, cosmology, particle physics, foundations of quantum mechanics and superstring theory.

## General Format

*Mornings:* Presentations on the conceptual foundations of modern physics and related pedagogical issues.

*Afternoons:* Keynote presentations by Perimeter Institute researchers and lab tours.

*Evenings:* Social activities and further discussions.

Throughout the week, there will be ample time for discussion. *Prior to the workshop, you will be asked to bring along any teaching resources or ideas related to modern physics that you wish to share with fellow participants.*

## When?

The dates for this year's workshops are as follows:

- Monday, July 2 to Saturday, July 7
- Monday, July 9 to Saturday, July 14
- Monday, July 16 to Saturday, July 21

Arrival dates will be the day prior to each workshop. *Einstein Plus* will be held on location at Perimeter Institute's award winning facility in Waterloo, Ontario, Canada.

## How can I apply?

Teachers must submit an application package and a letter of recommendation from their principal by **Thursday, April 12, 2007**.

The program will include 120 teachers overall (40 per workshop), including 40 international participants.

## What does Perimeter Institute cover?

International teachers must provide their own transportation to and from Toronto's Pearson International airport and their home country.

Perimeter Institute covers the following expenses:

- Travel to and from Toronto and Waterloo, Canada
- Accommodation in Waterloo for the duration of the workshop
- All meals in Waterloo for the duration of the program

Accommodation is provided in single-occupancy rooms at the Ron Eydt Village Residence on the nearby University of Waterloo campus ([www.housing.uwaterloo.ca/residences/rev/](http://www.housing.uwaterloo.ca/residences/rev/)).

