

## DUNLAP INSTITUTE SUMMER SCHOOL 2012

"Introduction to Astronomical Instrumentation: Tools and Techniques for Pioneering Astronomers"

University of Toronto  
July 30th – August 3rd, 2012

This summer school is designed with both lecture and laboratory activities that are intended for senior undergraduates and graduate students with a background in Astronomy, Physics, or Engineering.

### Summer School Includes

- The basic principles of astronomical instrumentation
- How telescopes and astronomical detectors work
- How advanced astronomical cameras work
- How high-precision spectrographs work
- Hands-on laboratory activities working directly with optics and mechanical equipment

### Program Topics

- What are the latest and upcoming innovative instruments and telescopes?
- How are we discovering extrasolar planets?
- How do we discover and weigh supermassive black holes?
- How will future instruments discover the first stars and galaxies?
- How and why do we use Adaptive Optics on ground-based telescopes?

### Invited Instructors

Debra Fischer, Yale University  
Michael Fitzgerald, University of California, Los Angeles  
Olivier Guyon, University of Arizona  
Markus Kissler-Patig, European Southern Observatory  
Sergio Leon-Saval, University of Sydney  
Jamie Lloyd, Cornell University  
Suvrath Mahadevan, Pennsylvania State University  
George Rieke, University of Arizona  
Luc Simard, Herzberg Institute of Astrophysics

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Register at [di.utoronto.ca/instrumentation-school](http://di.utoronto.ca/instrumentation-school)

Registration Deadline: May 18, 2012

Travel Grant and Tuition Waiver Application Deadline: April 13, 2012

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Bob Abraham, Joss Bland-Hawthorn (University of Sydney), Alice Chow, Debra Fischer, James Graham, David Law, Jamie Lloyd, Jerome Maire, Dae-Sik Moon, Mike Reid, Suresh Sivanandam, Anne-Marie Weijmans, Shelley Wright