



& **SDSC** PRESENT:

ASTROINFORMATICS

THE 2012 INTERNATIONAL SUMMER SCHOOL ON ASTROCOMPUTING

JULY 9 - 20, 2012

SAN DIEGO SUPERCOMPUTER CENTER
UNIVERSITY OF CALIFORNIA, SAN DIEGO

[HTTP://HIPACC.UCSC.EDU/ISSAC2012.HTML](http://hipacc.ucsc.edu/ISSAC2012.html)

THE DATA AVAILABLE TO ASTRONOMERS IS GROWING EXPONENTIALLY. LARGE NEW INSTRUMENTS AND NEW SURVEYS ARE GENERATING EVER LARGER DATA SETS, WHICH ARE ALL PUBLICLY AVAILABLE. SUPERCOMPUTER SIMULATIONS ARE USED BY AN INCREASINGLY WIDER COMMUNITY OF ASTRONOMERS. MANY NEW OBSERVATIONS ARE COMPARED TO AND INTERPRETED THROUGH THE LATEST SIMULATIONS. THE VIRTUAL ASTRONOMICAL OBSERVATORY IS CREATING A SET OF DATA-ORIENTED SERVICES AVAILABLE TO EVERYONE. IN THIS WORLD, IT IS INCREASINGLY IMPORTANT TO KNOW HOW TO DEAL WITH THIS DATA AVALANCHE EFFECTIVELY, AND PERFORM THE DATA ANALYSIS EFFICIENTLY. THE SUMMER SCHOOL WILL ADDRESS THIS ANALYSIS CHALLENGE. THE TOPICS OF THE LECTURES WILL INCLUDE HOW TO BRING OBSERVATIONS AND SIMULATIONS TO A COMMON FRAMEWORK, HOW TO QUERY LARGE DATABASES, HOW TO DO NEW TYPES OF ON-LINE ANALYSES AND OVERALL, HOW TO DEAL WITH THE LARGE DATA CHALLENGE. THE SCHOOL WILL BE HOSTED AT THE SAN DIEGO SUPERCOMPUTER CENTER, WHOSE DATA-INTENSIVE COMPUTING FACILITIES, INCLUDING THE NEW GORDON SUPERCOMPUTER WITH A THIRD OF A PETABYTE OF FLASH STORAGE, ARE AMONG THE BEST IN THE WORLD. SPECIAL ACCESS TO THESE RESOURCES WILL BE PROVIDED BY SDSC.



SDSC'S GORDON SUPERCOMPUTER. PHOTO: ALAN DECKER.

DIRECTOR: ALEX SZALAY (JOHNS HOPKINS UNIVERSITY)

SPEAKERS WILL INCLUDE:

MAIN LECTURERS

TAMAS BUDAVARI (JOHNS HOPKINS UNIVERSITY)
ANDY CONNOLLY (UNIVERSITY OF WASHINGTON)
DARREN CROTON (SWINBURNE UNIVERSITY)
GERARD LEMSON (MAX PLANCK INSTITUTE FOR ASTROPHYSICS)
RISA WECHSLER (STANFORD UNIVERSITY)
RICK WHITE (SPACE TELESCOPE SCIENCE INSTITUTE)

ADDITIONAL LECTURERS

MIKE NORMAN (UCSD/SDSC)
PETER NUGENT (LBNL / UC BERKELEY)
JOEL PRIMACK (UCSC)
ALEX SZALAY (JOHNS HOPKINS UNIVERSITY)
MATT TURK (COLUMBIA UNIVERSITY)

OTHER DETAILS

HOUSING: STUDENTS WILL BE STAYING AT CONFERENCE HOUSING NEAR SDSC ON THE UCSD CAMPUS (APPROXIMATELY \$50/NIGHT).

REGISTRATION FOR THE SUMMER SCHOOL WILL BE \$300. PAYMENT WILL BE REQUIRED AT THE TIME OF ACCEPTANCE.

AID: UC-HIPACC WILL COVER LODGING AND TRAVEL EXPENSES FOR UC-AFFILIATED STUDENTS, AND SOME FINANCIAL ASSISTANCE MAY BE AVAILABLE FOR OTHER STUDENTS.

APPLY BY MARCH 16, 2012. FOR MORE INFORMATION AND TO APPLY:

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