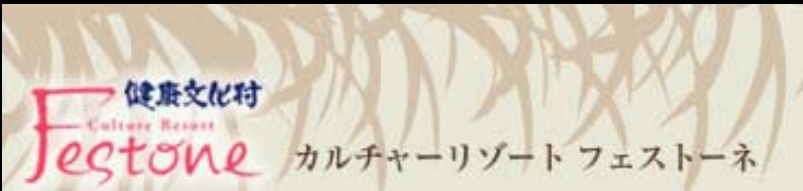


# Opening address

RESCEU & JSPS core-to-core  
program DENET Summer School  
*Dark energy in the universe*  
August 31-September 2, 2009



Culture Resort  
Festone  
@Ginowan, Okinawa

Yasushi Suto

*Department of Physics & RESCEU The University of Tokyo*



# International Research Network for Dark Energy (JSPS, core-to-core program 2007-2012)

## DENET

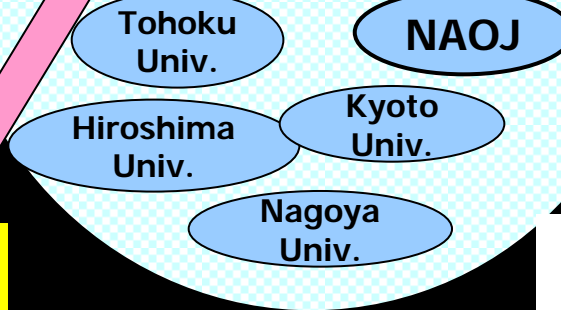
Princeton U.  
Dept. of  
Astrophys. Sci.  
coordinator  
Edwin Turner

Institut  
d'Astrophysique  
de Paris  
coordinator  
Jerome Martin

Univ. of Tokyo  
Res. Center for the  
Early Universe  
coordinator  
Yasushi Suto

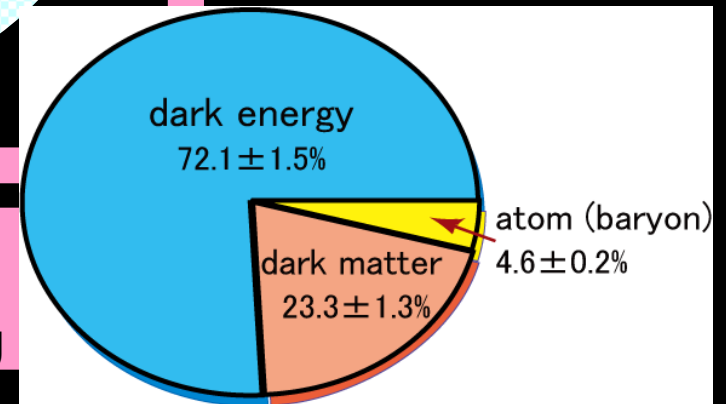
CMB  
Gravitational lens  
Baryon oscillation

Modified gravity  
Extra-dimension  
backreaction



Edinburgh U.  
Royal Obs.  
coordinator  
John Peacock

Theoretical model  
Baryon oscillation  
Weak lens mapping



四季の湯

強羅静雲荘

RESCEU & JSPS core-to-core program DENET  
Summer School

*Dark energy in the universe*

September 1-4, 2007

■ **Nemanja Kaloper (UC Davis)**

- Cosmological Constant and Other Dark Energies
- Challenging the Cosmological Constant
- Charting a Landscape of Modified Gravity

■ **David Parkinson (Univ. of Sussex)**

- The effect of dark energy on large-scale structure
- Large-scale structure as a probe of dark energy
- Recent BAO observations and plans for the future

■ **Mamoru Doi (IoA, Univ. of Tokyo)**

- Supernova observations for dark energy





# 2007 summer school





# Decrypting the Universe

## Large Surveys for Cosmology

### Invited Speakers

D. Spergel  
S. Cole  
E. Copeland  
M. Doi  
A. Helmi  
O. Lahav  
R. Maartens  
Y. Mellier  
S. Miyazaki  
A. Murphy  
M. Takada  
T. Yamada

24<sup>th</sup>-26<sup>th</sup> October 2007  
Edinburgh, Scotland

Joint Royal Observatory Edinburgh / JSPS  
Core-to-Core Program Workshop

[www.roe.ac.uk/roe/workshop/2007](http://www.roe.ac.uk/roe/workshop/2007)

**Royal  
Observatory  
Edinburgh  
Scotland**

### Local Organising Committee

A. Heavens  
R. Ivison  
A. Nicol  
P. Norberg (Chair)  
P. Simon  
F. Simpson  
A. Taylor

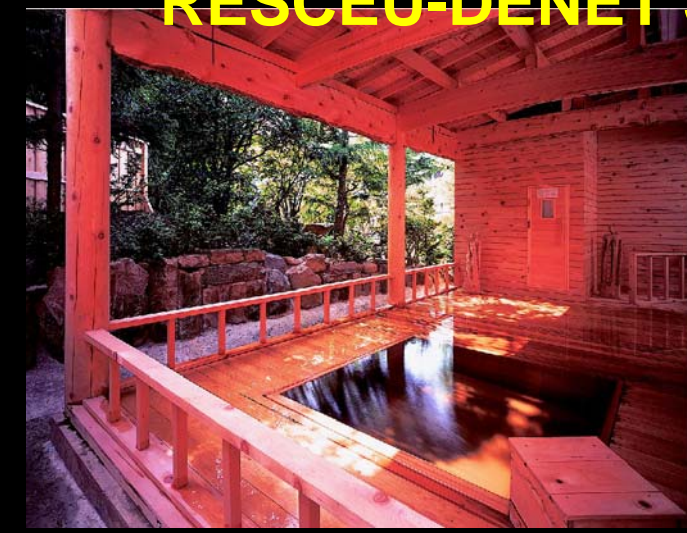






Aug. 31-Sept. 2, 2008

RESCEU-DENET Summer School @Asamushi, Aomori



## Three invited lecturers (2008)

- **Kazuya Koyama** (Univ. of Portsmouth)
  - *Modified gravity as an alternative to dark energy*
- **Alan Heavens** (Univ. of Edinburgh)
  - *Probing dark energy with weak lensing*
- **Andrei Frolov** (Simon Fraser Univ.)
  - *Dark energy models in  $f(R)$  gravity*





# COSMOLOGY NEAR & FAR: SCIENCE WITH WFMOS

May 19-21, 2008 @Marriot, Kona, Hawaii



Astronomy  
Australia  
Ltd.



Science & Technology  
Facilities Council





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# THE JOINT SUBARU-GEMINI SCIENCE CONFERENCE

May 18-21, 2009



Gemini Users Meeting

May 22, 2009



Kyoto University



# The Joint Subaru-Gemini Science Conference Photo May 18-21, 2009 @ Kyoto University





# Princeton-DENET workshop:

- Science Opportunities with Wide-Field Imaging and Spectroscopy of the Distant Universe
  - November 9-11@ Princeton University
- Project: SUMIRE
  - SUbaru Masurement of I maging and REdshift of the universe
- hardware
  - HSC (Hyper-Suprime Cam)
  - PFS (Prime focus Spectrograph) ex-WFMOS

# Three invited lecturers (2009)

- **Alexei Starobinsky** (Landau Institute)
  - Reconstruction of dark energy properties from observational data
  - Overview of dark energy models
- **Michael Seiffert** (JPL)
  - Cosmology with galaxy surveys
- **Will Percival** (Univ. of Portsmouth)
  - Dark Energy and Observational Methods
  - Measuring Galaxy Clustering and Making Predictions
  - Current Galaxy Clustering Measurements and Cosmological Constraints