

# 国台学术报告 NAOC COLLOQUIUM

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**TIME: Thursday, 3:00 PM, June 07, 2012**      **LOCATION: A601 NAOC**

## Venus transits: history and opportunities

**Prof. Costantino Sigismondi**

**ICRANet, Rome and Nice Universities**



Costantino Sigismondi is professor of Physics at Galileo Ferraris Institute of Rome. He teaches and works also at Sapienza University of Rome and ICRA (IT), University of Nice-Sophia Antipolis (FR), IRSOL (CH) and GPA-Observatorio Nacional Rio de Janeiro (BR).

He obtained Ph.D. in Physics at Sapienza University of Rome Fermions in expanding Universe in 1998. From 2000 onward, he involves the project on ground based accurate measurements of Solar diameter with Baily's beads method. More than 600 Baily beads were identified from 2005 to 2010. The goal is the 0.1-0.05 arcsec of accuracy on the solar diameter from these measurements, in order to reveal variations of the solar diameter with respect to the standard value of 1919.26 arcsec at 1 AU. Gerbert of Aurillac history is another part of his research activities.

### Abstract

The observation missions of 1761-1769 were done worldwide to measure the Astronomical Unit, which basically remained the goal during 1874-1882 transits, at the beginning of photographic astronomy. The transit of 1639 was observed only by J. Horrocks, while the transit of 2004 was considered a public event, without official scientists really committed. Only a few science results came out. In 2012, the last Venus transit of XXI century, the scientific community is aware of the opportunity offered by this event and the phenomenon is studied from several points of view: metrology (diameter of the Sun), planetary atmosphere (arc of refraction), exoplanets (study of a terrestrial planetary transit). Venus transits: history and opportunities



*All are welcome! Tea, coffee, biscuits will be served at 2:45 P.M.*

You are welcome to nominate speakers to Shude Mao ([shude.mao@gmail.com](mailto:shude.mao@gmail.com)), Licai Deng ([licai@bao.ac.cn](mailto:licai@bao.ac.cn)), Xuelei Chen ([xuelei@cosmology.bao.ac.cn](mailto:xuelei@cosmology.bao.ac.cn)).