

# ERASMUS PLUS PROJECT 2015-2017

IIS LS PICCOLO  
CAPO D' ORLANDO - ITALY



## *The White Heart of Earth*



Presentation realised by Teachers Smiriglia Antonino and Aglio Valentina



# *The White Heart of Earth*



## **IL CUORE BIANCO DELLA TERRA**

Il progetto Antartide  
raccontato dai protagonisti

Il Prof. Giorgio Dall'Oglio  
Università di Roma Tre  
e il  
Dr. Luca Valenziano  
INAF/IASF Bologna

al PICCOLO di Capo d'Orlando

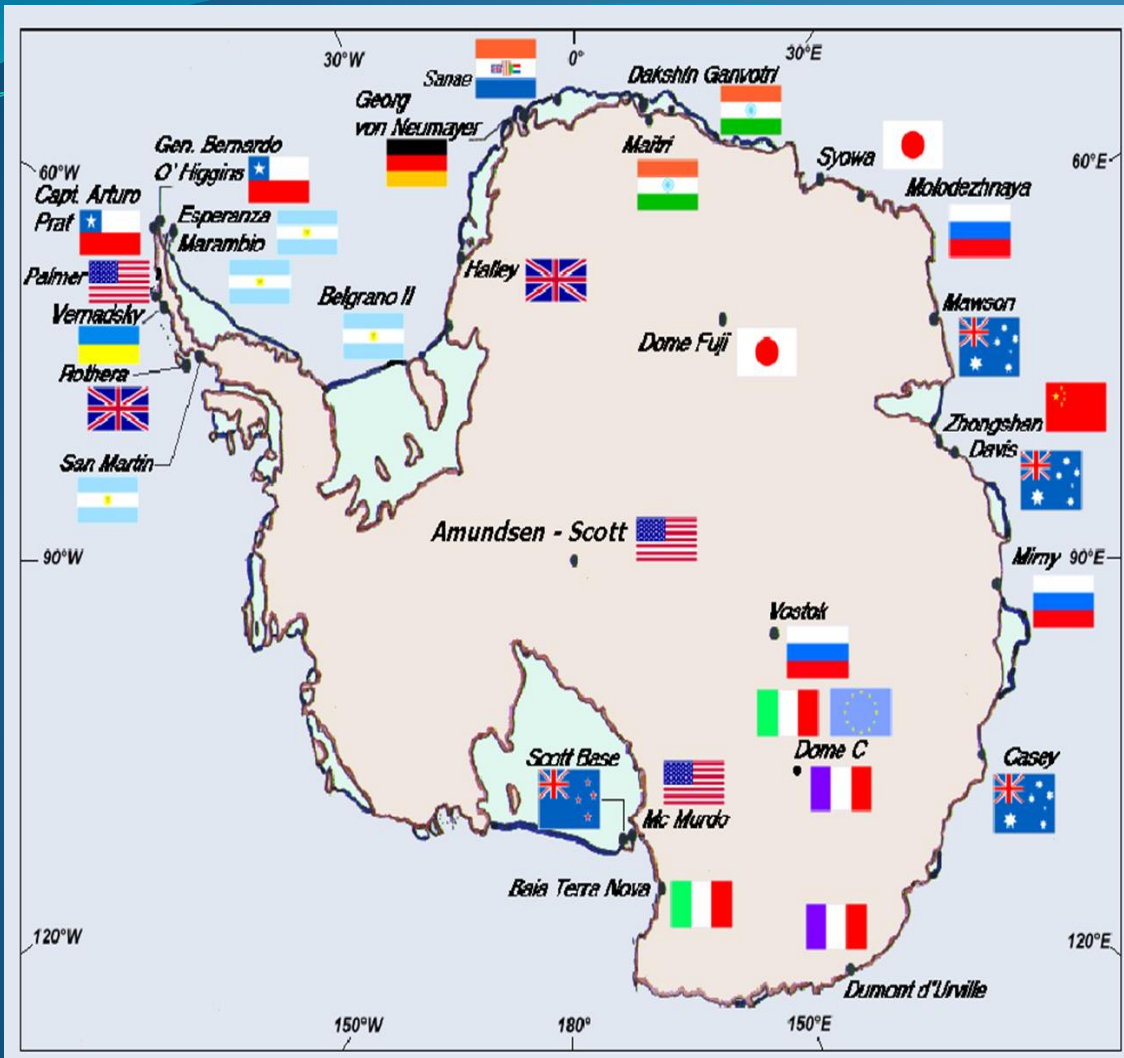




High quality science training course for all the students and the teachers of IIS LS PICCOLO of Capo d' Orlando, with the Astrophysicist Giorgio Dall' Oglio, Associate Professor at the university of Roma 3 and protagonist of countless expeditions to Antarctica.



*The White Heart of Earth*

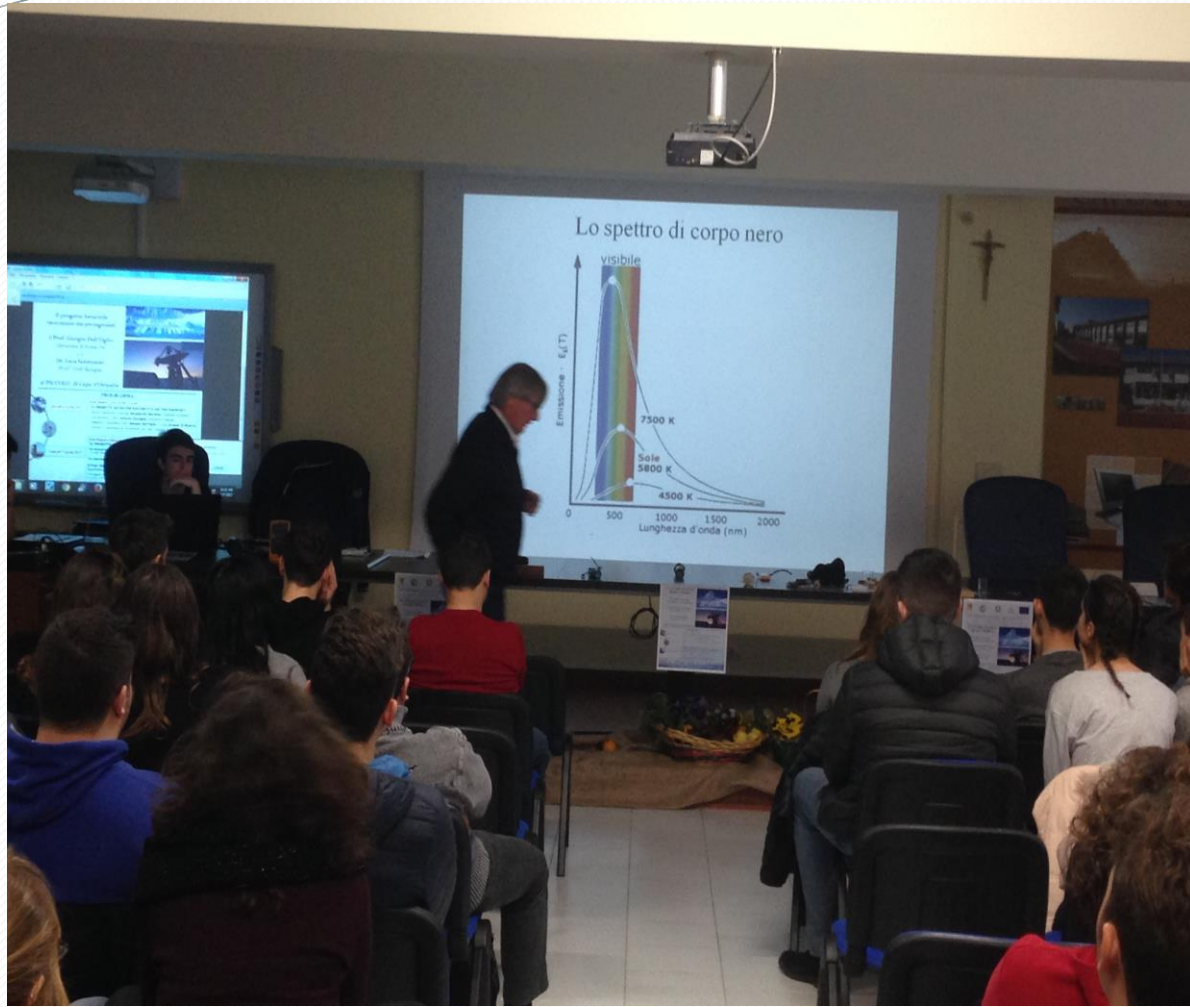






The initiative was promoted by the Headmistress, Mrs Margherita Giardina, and carried out with the collaboration of Mr Smiriglia Antonino, Teacher of Physics and Digital Counselor at IIS LS Piccolo, with the support of a *research group* of students.

## Professor Dall' Oglio presents the graphs of the Black Body



**The students of the research group (left to right):  
Franchina Chiara, Lionetto Paola, Paparone Paolo,  
Ievone Marika, Gaglio Giuseppe and Raffaele Mattia.**



The conference had two main moments, both held in the Main Room of the school. The first meeting for the teachers, on the 7<sup>th</sup> of April, as a great cultural opportunity in the annual plan of intellectual and educational training.



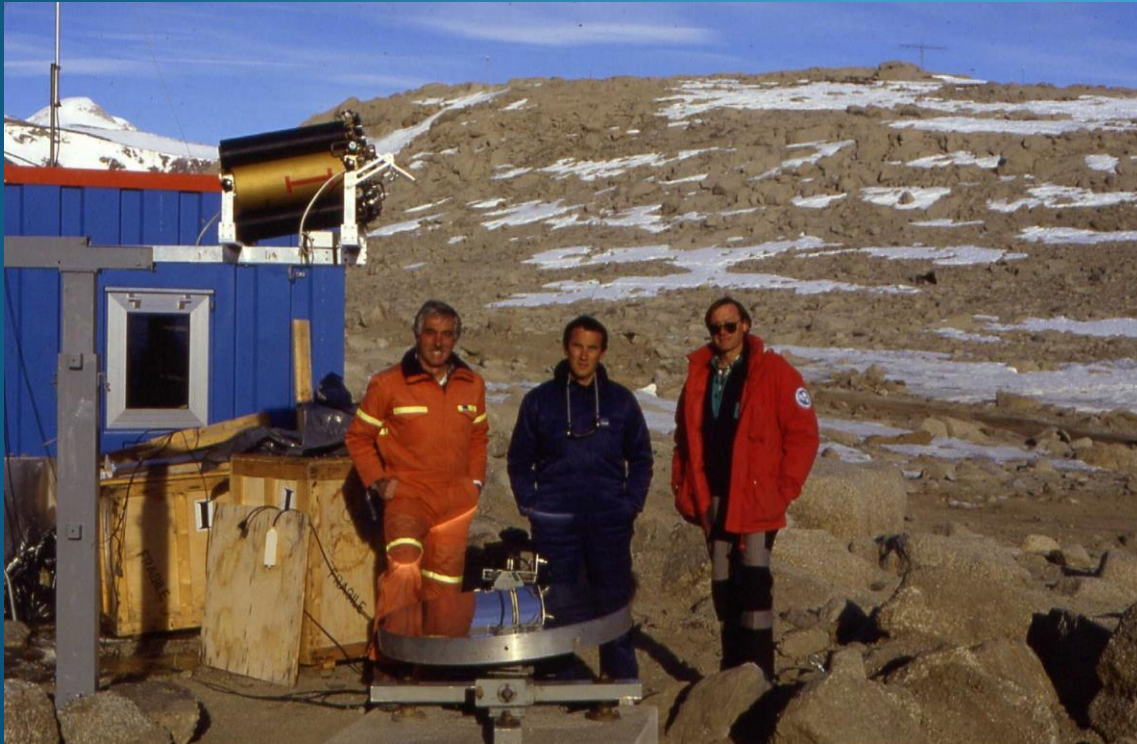
The second for the students of the fifth classes, on the 8<sup>th</sup> of April 2017, as a unique experience of scientific improvement, in the field of Chemistry, Physics and Math.





It was a journey from the infinitely big, with the observations of the farthest galaxies, to the infinitely small, with the current and new discoveries about nanotechnologies! The experience was a clear example of how it is feasible to study science in an across-the-board way in order to better and widely understand the historical evolution of mankind and meanwhile with an insight into the future.

Really many were the fields of interest analyzed and discussed during the two meetings:



- ❖ Astrophysics
- ❖ Matter Physics
- ❖ Particle Physics
- ❖ Theoretical Physics
- ❖ Earth and Environment physics
- ❖ Materials Engineering







During the meeting with professor Dall'Oglio, the student were widely fascinated, intrigued and excited by so interesting alive scientific experiments of electromagnetism, starting from Volta's bulb and going on to the newest and most current discoveries carried out thanks to more and more modern technologies.



# Professor Dall'Oglio is showing the students some experiments on electromagnetism





The training course turned out to be a really fascinating journey that, starting from the expeditions to Antarctica, led students and teachers to the discovery of the “fifth” continent in order to understand how our planet works and in order to be able to “read” the huge quantity of data on the history of our planet enclosed within the universe as into an enormous “archive”...



# The problems of the astronomer... the alternation between day and night



# Summing up..

## The problems for an astronomer...

- Atmospheric absorption
- Atmospheric turbulence
- Weather condition (wind, humidity, clouds)
- Light pollution
- Partly covered sky (natural obstacles)
- Day-night alternation

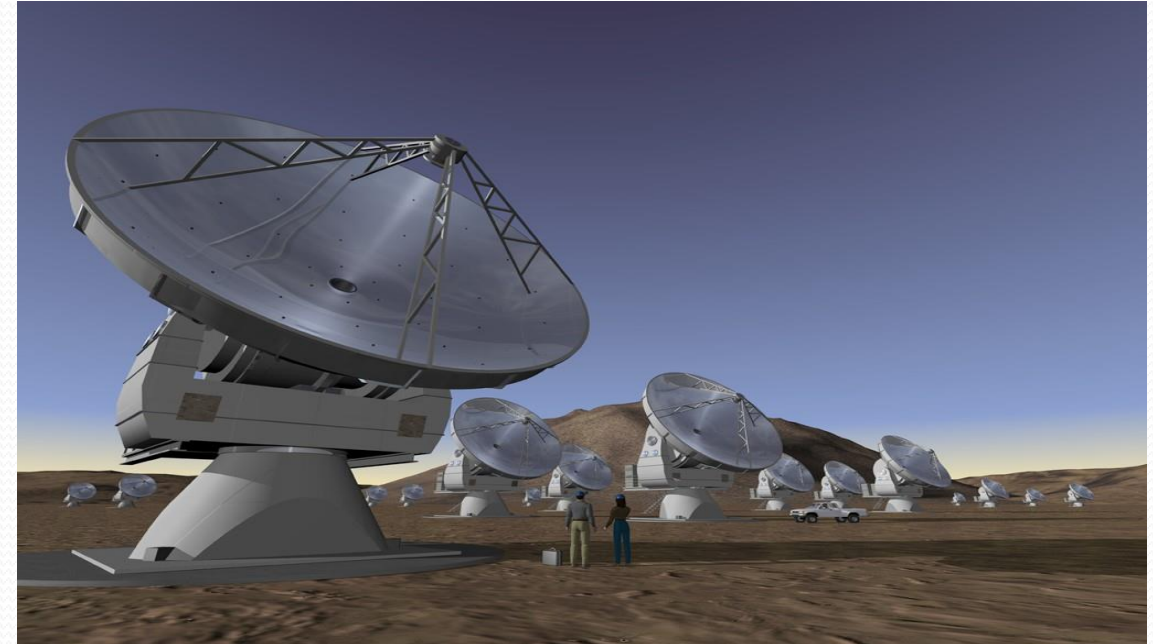




# La soluzione...

- The ideal place is at a high altitude, dry, with a stable atmosphere, few rainfalls, far from crowded places, without pollution... →
- We need a desert...!

...CILE???



Or...





# Antarctica



We have to be able  
to leaf  
through the folders  
of this  
big universe.







# Antarctica: the midnight sun



*"If , instead of shining continuously above our head, the stars could be admired  
from one only point of Earth,  
men wouldn't stop getting there to contemplate the wonders of the skies"*

SENECA

*...what is the best place on earth to study Astronomy?*





- <http://www.annotizie.it/2017/04/08/capo-dorlando-lalta-formazione-sui-banchi-del-lucio-piccolo/>