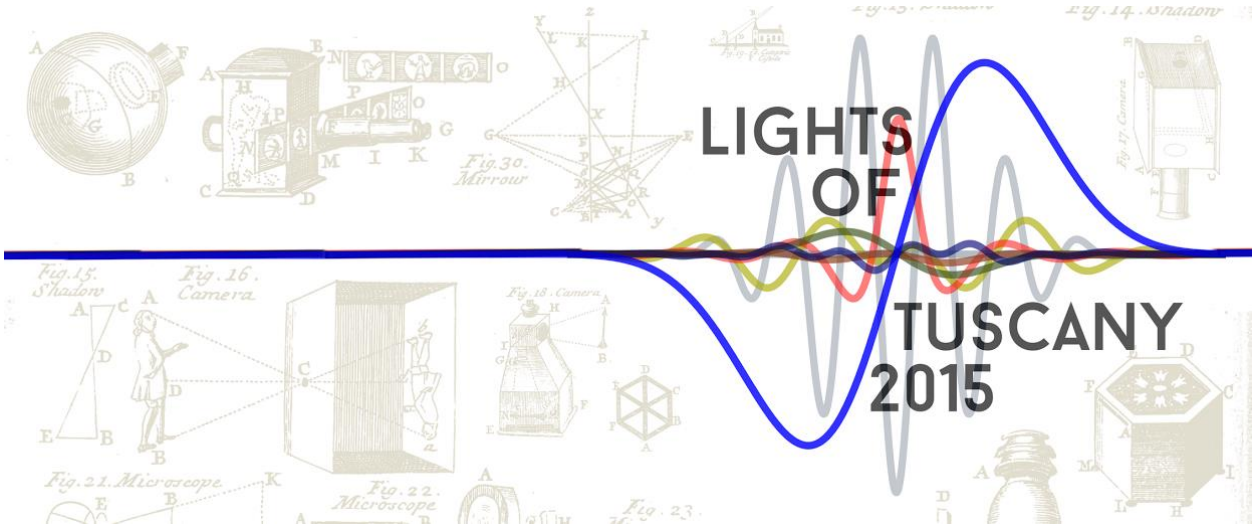
Lights of Tuscany 2015
Programme & Survival Guide

1 INTRODUCTION

The Associazione Italiana Studenti di Fisica (*Italian Association of Physics Students*, AISF) is proud to introduce you to the first ***Lights of Tuscany*** event. This is part of the celebration for the International Year of Light and will take place between December 17th and December 21st, 2015.

The programme consists of scientific lectures, presentations and visit of world-class research facilities in the provinces of Pisa and Florence, in Italy. As part of the social and cultural offer, participants will be able to do some sightseeing of these two amazing cities.



Updated information about this event can be found on the website:

http://www.ai-sf.it/lot/

Here, you will find descriptions of our speakers, of the institutes that we will visit and of our partners. The website design is by Giulio Pasqualetti and the event logos by Kelvin, CHOI Tsz Hei (IAPS UK).

The Italian Association of Physics Students welcomes you to Tuscany and wishes you a great experience in the land that inspired so many before us!

2 GENERAL INFORMATION FOR PARTICIPANTS

2.1 WEATHER

During December in Tuscany it is usually quite rainy. Temperature is around 10°C, but the wind and the high humidity will make it feel you much colder, so be prepared.

2.2 CONTACTS

If you have any problem, questions or suggestions, please contact any member of the Organizing Committee:

Marco Morrone	+39 3405349360	marcom.unipi@gmail.com
Giulio Pasqualetti	+39 3343170499	giulio.pasqualetti@ai-sf.it
Francesco Sciortino	+44 7565 875567	francesco.sciortino@ai-sf.it
Lucia Di Virgilio	+39 3483046192	lucia.divirgilio92@gmail.com
Giuseppe Fusco	+39 3286596287	giusyfus@gmail.com

2.3 COSTS

The standard participation fee that all participants already paid (€110 per person) covers most of the meals, transport and visits of the event. Please notice that it does **not** cover the following:

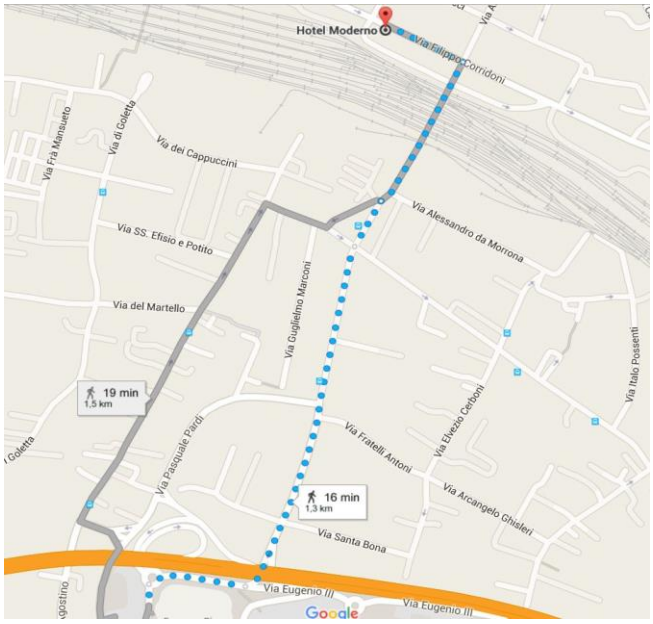
- Journeys to/from Hotel Moderno in Pisa at arrival and departure. These need to be arranged independently.
- Meals other than those officially offered in the Programme. In particular, participants will need to pay for both lunch and dinner in Florence on Sunday. The Organising Committee will always suggest places to eat, according to students` needs.

We suggest you to bring at least 50€ with you, as a minimal “survival budget”.

3 ARRIVAL

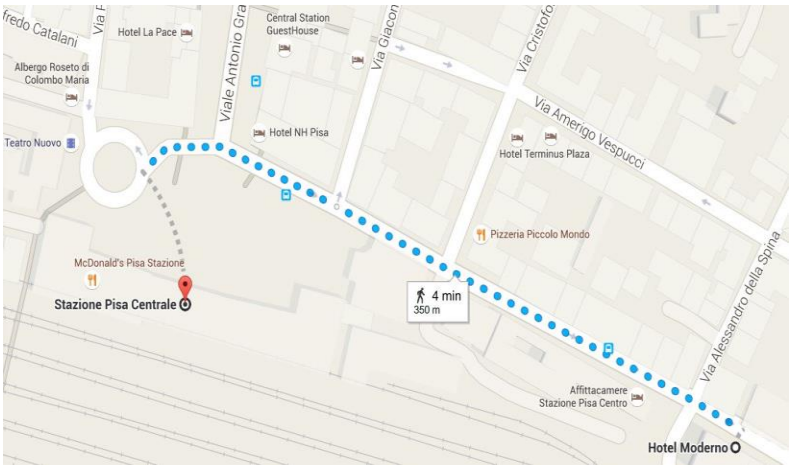
Accomodation will be provided at the *Hotel Moderno* in Via F. Corridoni, 103, 56125 Pisa.

You will be expected to arrive at the Hotel between 11:00 and 13:30 on Thursday December 17th. **Please notice that we do expect everyone to check in the hotel before 13:30** as the Opening Ceremony starts one hour later**.** The Organising Committee will be welcoming students at the hotel starting from 11:00.



3.1 BY PLANE

If you arrive to Pisa by Plane you will be able to reach the Hotel Moderno by foot in more or less 20 minutes or you can take a taxi just outside the airport spending around 7€. There is also a city bus from the airport to the train station for 1.50€, then from the station read the next section.



3.2 BY TRAIN

You can easily reach the Hotel by foot as shown in the map. Just outside the Station there is also a taxi stop, but note that the minimum fee for the taxi is way more expensive than the fee for the actual trip.

4 COMPLETE PROGRAMME

4.1 THURSDAY DECEMBER 17TH

11.00	Arrival at *Hotel Moderno*
14.30	Opening – Aula Vitali
15.15	AISF Presentation
15.30	IAPS Presentation
15.45	*Photonics and the Power of Light*
16:00	*Break*
16.10	Dr. Serena Gianfaldoni
16.30	Prof. Oliver Morsch
16.50	Prof. Massimo Inguscio
17:10	*Break*
17.20	Prof. Andrea Macchi
17.40	Mr. Jose M. González Castro
18.00	Round Table
18.45	*Apericena*
20.00	Pisa By Night

The **Opening Ceremony** is open to the public and will be held at the *Aula Vitali* at the Medical School of Pisa, in Via Roma 55. It will offer a short presentation of the event, of AISF and of IAPS and the *LIGHTalks: Career in Photonics* which consists of an set of live presenters from the scientific, entrepreneurial and industry communities speaking about different aspects of photonics.

We are proud to have a fantastic line-up of speakers, who will certainly entertain and inspire the audience to see new aspects of light technologies; short descriptions of their activities and interests can be found on the event website:

http://www.ai-sf.it/lot/guests.html

After the Opening Ceremony, there will be an aperitif and open buffet for all attendants, kindly offered by the University of Pisa and the European Physical Society.

Afterwards, weather permitting, the IAPS group will go for a short tour of Pisa by Night.

In the days following the opening ceremony, we will visit some of the most active centers in Europe for research in the fields of photonics, atomic physics, nanotechnology and gravitational waves. Although the subjects covered by these institutes are diverse, they are unified by a common interest for coherent light sources. This theme will accompany us throughout our journey in the Tuscan region.

The times displayed in this document represent our current expectations, but will inevitably vary depending on differing scenarios. We ask all participants for their collaboration in respecting the schedule as much as possible.

4.2 FRIDAY DECEMBER 18TH

8.00	Leave the Hotel
8.15	Bus
9.30	LENS Presentation
10.30	LENS Facilities
12.30	Lunch
14.00	LENS Facilities
16.30	Bus
17.45	Arrival at the Hotel
19.30	Dinner

We will be leaving Pisa by bus, traveling from the airport at 8.15 in order to arrive at the European Laboratory for Nonlinear Spectroscopy (LENS) at 9.30.

The LENS is an international and interdisciplinary institute in Florence. The main research lines are atomic physics, photonics, physical chemistry and biophysics.

We will be able to visit its facilities and have lunch there, offered by the Laboratory. The Italia Association of Physics Students is currently discussing with the laboratory direction about a possible internship programme to be opened to university physics students in the near future. If you find that this would interest you, you are invited to ask questions to researchers and express your support for this initiative during our visit.

After our visit at LENS, we will take a bus back to Pisa and we will have dinner at one of the canteens of the University of Pisa (UniPi). After dinner, we will have a second opportunity to socialize in the city center.

4.3 SATURDAY DECEMBER 19TH

9.00	UniPi Physics Department
11.30	Talk by Prof. di Lieto
12.30	Lunch
14.00	Bus to VIRGO (from the airport)
14.30	VIRGO – Talk by Prof. Giancarlo Cella
15.30	VIRGO
18.30	Bus back to Pisa
19.00	Arrival at the Hotel
19.30	Dinner

We will start the day with visits of optics and photonics laboratories in the Physics Department of the University of Pisa, including a tour of the gyrolaser facility in the Di Virgilio Laboratory. Gyrolasers are used at the European Gravitational Observatory (EGO) and in particular at the VIRGO interferometer, in order to improve the precision of instrumentation.

After lunch we will take a bus to visit the site of EGO-VIRGO, a detector for gravitational waves which operates on the principle of a Michelson interferometer. Following its upgrade, VIRGO will run day and night listening to all gravitational signals which may arrive at any time, originating from any part of the Universe. The signals will be detected, recorded and pre-analysed through a sophisticated computing system.

Dinner will be offered at the *Dabbe Pizzeria*, where our menu will include a pizza and a drink. Participants will be able to purchase anything else on an individual basis.

4.4 SUNDAY DECEMBER 20TH

8.15	Train to Florence
10.00	Visit of the Uffizi Gallery
TBD	Return to Pisa

On Sunday, we will spend a free day in Florence! This city needs no introduction and it will undoubtedly astonish anyone who is not well prepared for its beauty!

We need to be there at 9.30, since our visit of the Uffizi Gallery has been reserved for 10.00.

We will be able to choose together whether to come back to the Hotel before or after dinner.

Note that both lunch and dinner in Florence will not covered by the participation fee.

4.5 MONDAY DECEMBER 21ST

9.00	SNS-NEST or SSSUP-TeCIP
12.00	Lunch
14.30	End of the Event

On the last day, we will visit two of the most cutting-edge facilities of Scuola Normale Superiore (SNS) and Scuola Superiore Sant'Anna (SSSUP).

The National Enterprise for nanoScience and nanoTechnology (NEST), located in San Silvestro Square, is an interdisciplinary research and training center in Pisa and it closely collaborates with the University of Pisa and the Scuola Normale Superiore.

The Institute of Communication, Information and Perception Technologies (TeCIP) is part of the Scuola Superiore Sant'Anna. Its research concerns the use of photonic technologies in the construction of communication networks, sensors and biophysics.

Our group has been previously divided so that approximately half of the participants will visit each institute. Following our visits, students going to the NEST will have lunch at the canteen in Piazza dei Cavalieri, whilst those going to the TeCIP will have lunch within the institute itself. The Organising Committee tried to accommodate everyone's requests and further flexibility will be possible at the beginning of the event, when we will be able to make some modifications to the groups. After our visits, both NEST and TeCIP will offer us lunch, before we come back to the Hotel, ready to set off at the end of the event.

5 PARTNERS

We take the opportunity to thank our partners for *Lights of Tuscany 2015.* Firstly, thanks to Michele Re Fiorentin, AISF Treasurer, who looked after our finances and patiently followed us through every step. The rest of the AISF Executive Committee, although spread around Italy and Europe, showed great support for this initiative led by the Local Committee of Pisa. We would also like to thank the International Association of Physics Students for welcoming AISF as an Italian National Committee starting from 2015 and for financially supporting this initiative through its Member Action Programme 2015/16.

Our enthusiasm and efforts would have been futile if it were not for the truly incredible support of our partners. This event possibly being a first-of-its-kind, we would like to particularly thank those who recognize AISF as a group of passionate and reliable students. Our heartfelt thanks go to Prof. Fidecaro, for being of great assistance to our event, as well as to Prof. Fuso and Prof. Cella, for their help with the logistics of the initiative. We are also grateful to Prof. Inguscio, who is both a key supporter and an inspiration for our group, and to Jorge Rivero Gonzalez, of the European Physical Society, who believed in our programme from its inception.