

44th National Congress of the Italian Society for the History of Physics and Astronomy Department of Physics and Astronomy, University of Florence, and INAF - Arcetri Astrophysical Observatory 17-20 September 2024

Second Announcement

We are happy to announce that the 44th yearly Congress of the *Italian Society for the History of Physics and Astronomy* (SISFA) will be held at the <u>Department of Physics and Astronomy</u> of the University of Florence and at the INAF - <u>Arcetri Astrophysical Observatory</u> on **17-20 September 2024**.

General Information and Scientific Program

Organizer: SISFA (Società Italiana degli Storici della Fisica e dell'Astronomia).

Organizing and Scientific Committee: Salvatore Esposito (Università di Napoli Federico II); Ivana Gambaro (Università degli Studi di Genova); Mauro Gargano (INAF - Osservatorio Astronomico di Capodimonte, Napoli); Antonella Gasperini (INAF - Osservatorio Astrofisico di Arcetri); Roberto Lalli (DIMEAS, Politecnico di Torino); Adele La Rana (Università di Macerata); Flavia Marcacci (Pontificia Università Lateranense, Roma); Samuele Straulino (Università di Firenze); Valeria Zanini (INAF - Osservatorio Astronomico di Padova).

Local Organizing Committee: Patrizia Braschi, Antonella Gasperini, Rossella Spiga (INAF - Osservatorio Astrofisico di Arcetri), Giovanna Pacini, Samuele Straulino (Università di Firenze).

Congress official web page: https://indico.ict.inaf.it/e/florence-2024

Congress official email address: congresso@sisfa.org

The Congress

The Congress is one of a well-established series that SISFA has been organizing on a yearly basis since its foundation. It aims at promoting the research activities in the history of physics and astronomy in Italy, carried out not only by academic historians, but also by independent scholars and school teachers willing to explore the role of the history of physics and astronomy in the present-day teaching of the disciplines. At the same time, the

Congress provides an opportunity to strengthen the collaborations and establish new links among the members of SISFA and the members of other scholarly societies, as well as researchers working in the same and in related fields.

Historians of physics and astronomy are then invited to participate, and the invitation is extended to all the scholars and researchers sharing the same kind of interests.

- The Congress will host both invited talks and communications. The official languages will be both Italian and English. More detailed information and updating will soon appear on the Congress web site: https://indico.ict.inaf.it/e/florence-2024
- The SISFA award for the Best Graduate Thesis in History of Physics or History of Astronomy (<u>Premio di Laurea SISFA2024</u>) will be awarded during the Congress.

Topics

Proposals for oral communications should mainly address the history of physics and astronomy, also in connection with the related areas of mathematics, chemistry and the history of science and culture. Studies focusing on historical instruments and documentary sources regarding the mentioned fields are also relevant to the purposes of the Congress, as well as the applications of the history of physics and astronomy in science education and in museum displays.

Thematic sessions

From Information to Artificial Intelligence: More Than 100 Years of Communication and Computation / Dall'informazione all'intelligenza artificiale: oltre 100 anni di comunicazione e computazione - One hundred and fifty years ago Guglielmo Marconi was born. His discoveries led to the development of long-distance telecommunications. Fifty years later Harry Nyquist published his ideas on the "transmission of intelligence by telegraph". Though used differently from today, the term "intelligence" contained critical insights, and scholars have gradually clarified the distinction between intelligence, information and communication. This session will discuss the origins of information and communication theory and its evolution to cybernetics and artificial intelligence. Invited speakers:

Francesco Bianchini, Università di Bologna Giovanni Paoloni, Sapienza Università di Roma

1924–2024: From Quantum Statistics to Condensed Matter Physics / Dalla Statistica Quantistica alla Fisica della Materia Condensata - In celebration of the centenary of Bose-Einstein statistics, this session will host papers dedicated to the history of quantum statistical mechanics, solid-state physics, and condensed matter physics throughout the 20th century.

Invited speaker:

Joseph Martin, Durham University Giuseppe Giuliani, retired, Università di Pavia

1924–2024: Edwin Hubble and the Evolution of Modern Cosmology / Edwin Hubble e la Nascita della Cosmologia Moderna - In 1923, Edwin Hubble, thanks to the discovery of Classic Cepheids in the Andromeda galaxy (M31), demonstrated that the Andromeda nebula

was not part of our Galaxy but was located approximately two million light-years away from us. This discovery of island universes paved the way for measuring the expansion of the Universe, understanding cosmic distances, and modern cosmology/astrophysics. *Invited speaker:*

Edvige Corbelli, INAF

100 Years since the Birth of the University of Florence / 100 Anni dalla Nascita dell'Università di Firenze

Invited speakers:

Simone Bianchi, INAF Marco Ciardi, Università di Firenze Daniele Dominici, Università di Firenze Alessandro Farini, INO

In Memory of Giuseppe Occhialini and Bruno Rossi / In Ricordo di Beppo Occhialini e Bruno Rossi - Giuseppe Occhialini (1907-1993) was one of the first students to achieve a degree in Physics (1929) at the University of Florence, whose establishment marks the centenary this year. His research in particle physics, cosmic ray physics and space physics brought him to the forefront of 20th century Italian physics. In the same period, Bruno Rossi made his first measurements on cosmic rays, with some Geiger–Müller tubes read by the innovative coincidence circuit, at the Florence Physics Institute.

Invited speakers:

Luisa Bonolis, Max Planck Institute for the History of Science Pasquale Tucci, retired, Università di Milano

Museums, Archives, and Scientific Collections of Physics and Astronomy in Italy and Abroad / Musei, Archivi e collezioni scientifiche di fisica e astronomia in Italia e nel mondo - The historical collections of instruments and documents testify to scientific progress, and they are still resources for teaching and research. This session will give space to Italian and foreign historical collections.

Dialogue Between History, Teaching and Dissemination in Physics and Astronomy / Dialogo tra storia, didattica e divulgazione in fisica e astronomia - This session will focus on the connections between science education, public engagement and the history of physics and astronomy.

Video shooting

The talks will be broadcast live streaming. The presentations will be recorded using the online platform and the related videos will become later available on our dedicated channel of YouTube SISFAmedia (unless explicit refusal by the contributor).

Special events

During the Congress some special events are planned, such as visits to Museum <u>La Specola</u>, recently set up in a new layout and equipped with a small, ancient astronomical tower, and to the Villa Galileo, which is near to the Meeting venue.

Accommodation

The Congress will be held in a tourist high season period for the city of Florence; consequently we **strongly** suggest all the participants to book the hotel accommodation **as soon as possible**. For information and reservation you can email to ggihousing@fi.infn.it

Registration, abstract submission, conference fees, deadlines

The conference is open to both members and non-members, but **non-members who have never attended a SISFA conference should also submit their CV** to congresso@sisfa.org. Registration is mandatory in order to attend the conference. Non-invited speakers have to finalize their registration <u>after</u> paying the conference fee. The conference fee will include lunches and coffee breaks, and will be used to partially cover the cost of the publication of the conference proceedings that will be published online and open access with <u>FedOAPress</u>. Abstracts of oral communications should be submitted **in English**. All abstracts will be peer-reviewed on behalf of the SISFA scientific committee. Please see below for more details regarding <u>important dates</u>, <u>abstract submission</u>, <u>conference fees</u>, <u>registration</u>.

Important Dates

- a) Abstract submission (<u>NEW deadline</u>: 16 June 2024): the abstract should be submitted in English using the form that appears clicking the button **Submit new abstract** on the Congress web page: https://indico.ict.inaf.it/e/florence-2024
 - Abstracts should have a length between 100 and 250 words and include no bibliography. Abstracts and the presentation of oral communications should comply with the procedures indicated here (in Italian).
 - **Indico account:** The website of the conference is powered by the Indico event management system. To submit an abstract, it is necessary to use your INDICO or IDEM account. If you do not have one yet, request it by writing: for the SISFA Congress. It will be quickly activated.
- b) Notification of acceptance (23 June 2024)
- c) Payment of conference fee (<u>deadline</u>: 14 July 2024) applying to the specific situation (see below).
- **d)** Registration (deadline: 14 July 2024) will be possible only after having paid the conference fee.

Amount of conference fees

Different <u>conference fees</u> apply to SISFA (1) and non-SISFA (2) members. Reductions do also apply for special categories of participants.

CONFERENCE FEES	
SISFA members	
Full Conference fee	€ 150
*Reduced Conference fee	€ 50
Non SISFA members	
Full Conference fee	€ 200
* Reduced Conference fee	€ 100
*Reduced Conference fees apply in general to the following categories: 1) Undergraduate students; 2) MPhil or PhD students; 3) school teachers.	

<u>SISFA members</u> are intended as those in good standing for the year 2024. Please, ensure that your 2024 membership fee has been paid. If not already done, please do so (payment system and membership fees on the SISFA webpage: http://www.sisfa.org/i-soci/rinnovo).

Payment system: By bank transfer using the IBAN code and bank details below. Please, remember to write 2024+SURNAME in the comments field (Causale) to allow us proper administrative handling.

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