

XXXIX SISFA CONFERENCE - Pisa, 9-12 September 2019

Department of Physics - Pontecorvo Area - Largo Pontecorvo 3 Pisa

Keynote Lecture: 40 + 10 min

Invited talk: 25 + 5 min

Contribution: 15 + 5 min

Please notice that the timetable below shows only the names of the speakers, while the complete list of the authors of the presented research activities is available in the booklet of abstracts.

MONDAY - SEPTEMBER 9

Department of Physics, Largo Pontecorvo 3 - Pisa

9:00-9:30	Registration - Room 131
ROOM 131	Chairperson Vincenzo Cavasinni
9:30-10:00	Opening of the Congress and Institutional greetings
10:00-10:50	Keynote Lecture Mario Taddei, Leonardo da Vinci, artist and scientist, from the cenacle to the moon
10:50-11:10	Pasquale Tucci, From Leonardo's Moon to Galilei's Moon
11:10-11:25	Coffee break
11:25-11:55	Invited Talk Miriam Focaccia, Cornelia Fabri Mathematician (Ravenna, 9 settembre 1869 – Firenze, 24 maggio 1915)
11:55-12:25	Invited Talk Roberto Lalli, Towards a computational history of science: The dynamics of socio-epistemic networks in the renaissance of general relativity
12:25-12:45	Fabio Bevilacqua, Pavia Physics Professors (1860-1942)
12:45-13:05	Enrico Giannetto, The original letter of Galileo to Benedetto Castelli of December 21, 1613
13:05-13:25	Fabrizio Pinto, The history of technology transfer of the Casimir effect and van der Waals forces: From exotic, weak, and undesirable to enabling, emerging, and irresistible
13:25-14:30	LUNCH
Session: Riccardo Felici (1819-1902), a Pisan contributor to the birth of Electrodynamics Chairperson: Marco Massai	
14:30-15:20	Keynote Lecture Friedrich Steinle, Early Electrodynamics, the induction effect, and the place of Felici
15:20-15:40	Paolo Rossi, The figure and the work of Riccardo Felici in the 200th anniversary of his birth
15:40-16:00	Lucia De Frenza, Riccardo Felici and the discussion about electric screens
16:00-16:20	Claudio Luperini, Mariano Pierucci
16:20-16:40	Coffee break
16:40-17:00	Roberto Mantovani, People, Places and Scientific Instruments: Physics in Rome

	in the First Half of the Nineteenth Century	
Parallel Sessions		
	ROOM 131	ROOM B
	From <i>Electric Fluid</i> to Synchrotron Radiation Chairperson Luigi Romano	The Far Roots of Scientific Thought Chairperson Angelo Pagano
17:10-17:30	Danilo Capecchi, Some incongruences in Coulomb's memoirs on electricity 1785-1788	Boscarino Giuseppe, Does Archimedes, in his Sandreckoner, criticize Aristarchus and shows that the potential infinite of Aristotle is true? The Italic school in astronomy between the 5th, 4th and 3rd centuries b.C. and the Platonic-Aristotelian reaction.
17:30-17:50	Mario Calamia, And if Marconi... impossible stories	Renato Migliorato, From Euclid to Ptolemy: representation ed explanation of phenomena
17:50-18:10	Antonio Bianconi, X-ray spectroscopy in Italy 1895-1985: from early works of Brunetti, Fermi, Gentile, Majorana, Fano, Pincherle to the first european experiments using Frascati Synchrotron radiation	Giuseppina Ferriello, La Meccanica di Erone nei manoscritti persiani fra traduzione e innovazione
ROOM	Aula magna del Polo Didattico G. Carmignani, Piazza Cavalieri 6 – Pisa (see map)	
18:30-20:00	<p>Documentary Film “La scelta. Edoardo Amaldi e la scienza senza confini”, written by Adele La Rana, directed by Enrico Agapito and carried out under the moral patronage of SISFA. On the occasion of the 30th Anniversary since Amaldi's death.</p> <p>The film is a production of Zanichelli Editore, TERA Foundation and Agapito Realizzazioni Audiovisive, supported by INFN, with the contribution of the Department of Physics of Sapienza University of Rome and the patronage of SISFA and of Edoardo Amaldi Foundation – Hypatia Consortium – ASI.</p>	

TUESDAY - SEPTEMBER 10

European Gravitational Observatory – Virgo, Via Edoardo Amaldi – Cascina Main Building

7:45	Departure for the VIRGO site (Cascina) with the shuttle bus. Meeting point: Parking place in Via Paparelli, 10 min walk from Physics Department (map).
Session: Experimental Tests of General Relativity Chairperson Roberto Lalli	
8:45-9:05	Ettore Majorana, Presentation of the Virgo experiment
9:10-10:40	Visit to the Virgo Laboratories
10:40-10:55	Coffee break
10:55-11:45	Keynote Lecture and “Zanichelli Lecture”, supported by EGO Daniel Kennefick, No Shadow of Doubt: The Eclipse Expeditions of 1919 in detail
11:45-12:05	Florian Laguens, Joy, excitement and sleepless nights. Einstein’s and Eddington’s Attitudes Towards Experiments
12:05-12:35	Invited Talk Luisa Bonolis, The lead-up to first Texas Symposium and the emergence of relativistic astrophysics
12:35-12:55	Invited Talk Steve Shore, A Singular Problem: Conceptual development of black holes
12:55-13:15	Adele La Rana, A historical perspective on the 3rd generation GW detectors: the early attempts for a joint European effort (1986-1989)
13:30	Departure. Return to Pisa
14:00-15:15	LUNCH – Buffet at the Department of Physics in Pisa
Department of Physics, Largo Pontecorvo 3 - Pisa ROOM 131 Chairperson: Paolo Rossi	
15:15-16:05	Keynote Lecture Luciano Maiani, The Charm of Theoretical Physics (1958-1993)
16:05-16:20	Ceremony for SISFA’s Prize for the Best Thesis in History of Physics and Astronomy
16:20-16:40	Ivan Giuseppe Malara, Galileo Galilei e il tema cosmogonico della creazione del mondo. Winner of SISFA Prize 2019.
16:40-17:00	Rocco Gaudenzi, The pre-history of spontaneous symmetry breaking: an <i>interdisciplinary</i> intrigue
17:00-17:20	Coffee break
17:20-17:40	Stefano Furlan, The <i>Wheeler</i> of Time: from Geons to Monads
17:40-18:00	Maurizio Consoli, Small fluctuations of the velocity of light: a guiding principle from Michelson-Morley to modern optical interferometry
18:00-20:00	Guided tour of the Monumental Cemetery of Pisa and of Buonamico Buffalmacco’s affresco “Il trionfo della morte” (Piazza dei Miracoli, 15 min walk from the Congress venue, see map). Reading of passages from Galileo’s writings, with musical accompaniment.

WEDNESDAY SEPTEMBER 11

Department of Physics, Largo Pontecorvo 3 - Pisa

Parallel Sessions		
	ROOM D1 - Chairperson Mantovani Museums and Scientific Instruments	ROOM B1 - Chairperson P. Tucci Developments in XX Century Physics
8:40-9:00	Giancarlo Albertini, Disclosure publications in the astronomy of late nineteenth century between popular science and science "for lady"	Benedetta Campanile, Aldo Romano and the 50 years of CSATA
9:00-9:20	Fausto Casi, Leonardo Da Vinci in De Divina Proportione	Antonino Drago, Quantum mechanics and constructive mathematics: a review and a suggestion for a new formulation
9:20-9:40	Gaetano Abate, Sistema Museale Irpino	Luigi Romano, Franco Selleri and His Contribution to the Starting of Debate on Foundations of Quantum Mechanics: 1969-1979
9:40-10:00	Fausto Casi (substituting Andrea Orlando), Two 16th century Florentine topographic compasses found in the collection of scientific instruments of the Ursino Castle (Catania)	Marco Di Mauro, An unpublished approach to electrodynamics by Richard Feynman
10:00-10:20	Coffee break	
	Museums and Scientific Instruments	Dawn of Modern Scientific Thought Chairperson P. Tucci
10:20-10:40	Maria Luisa Tuscano, The Catoptrico-Gnomonicum Astrolabium designed by Emanuele Maignan for the Palazzo Spada of Rome	Pietro Cerreta, Guidobaldo, Galileo e il lancio della pallina tinta d'inchiostro sulla tettoia inclinata
10:40-11:00	Lucia Lanfiuti, The development of early refracting telescopes in XVII century: from Galileo Galilei to Giuseppe Campani	Yoshimi Takuwa, Preparing for the experimental research on 'Newton's prisms' in Italy compared to those in Britain
11:00-11:20	Azzurra Auteri, P.A. de Luca and the sound system through the study of a cordometer and a tonometer	Stefano Veneroni, The vis viva (living force) controversy in the first Kantian work [1746 (1749)]

Plenary Session	
ROOM D1 - Chairperson Luigi Romano	
11:20-11:40	Christian Bracco, Relativity at first order and deflection of light
11:40-12:00	Leonardo Gariboldi, Handling with Pontremoli's memory at the Institute of Physics in Milan during the Fascist regime
12:00-12:20	Sandra Linguetti, Physicists, engineers and soldiers at the origins of the Italian Istituto centrale aeronautico
12:20-12:40	Eleonora Loiodice, "Life belts" around the cities: MIT scientists' voice in political and social life of the '50s
12:40 -14:00	LUNCH
Opening of the SISFA Workshop in Plenary session with the SISFA Congress	
ROOM D1 - Chairpersons: Marisa Michelini and Lucio Fregonese	
14:00-14:50	Keynote Lecture: Enrico Massa, Il nuovo kilogrammo (Workshop continues in Room D1)
Session: Venezuela: Historical perspectives on physics and physicists	
ROOM 131 - Chairman Roberto Mantovani, Co-chair Ruth Castillo	
15:00-15:05	Opening speech introducing the special session
15:05-15:15	Enrique Planchart, Academic Situation of Simón Bolívar University. Economic situation of the academic staff of Simón Bolívar University (Video contribution)
15:15-15:25	Yajaira Freitas, The advances of the investigation of the History of Physics in Venezuela since the 18th century: Tracking physics in Venezuela (1827-1961) (Video contribution)
15:25-15:40	Claudio Bifano, Science in Venezuela: Institutionalization and decline, Physics as an example (Video contribution)
15:40-15:55	Coffee break
15:55-17:15	Panel Discussion Arturo Sanchez, Physics in Venezuela: How this science and its scientists keep producing the next generation with the help of the rest of the World Alberto Sotillo, Alba of violations, twilight of rights in the convulsed Venezuela David Verrilli, The Evolution of Nuclear Science Research in Venezuela

	Ruth Castillo, Agustín de la Torre and the beginning of Physics in Venezuela: a historical approach to the beginnings of technical and scientific thought in Venezuela
17:15-18:30	PLENARY MEETING OF THE SISFA MEMBERS
18:30-20:00	Visit to the Museum of Physics Instruments of Pisa (Cittadella Galileiana - Via Nicola Pisano, 20 min walk from the Department of Physics - see map)
20:30	SOCIAL DINNER. Chostro del Carmine - Pisa Center, Via del Carmine, 15 min walking distance from the Department of Physics (see map).

THURSDAY SEPTEMBER 12

Department of Physics, Largo Pontecorvo 3 - Pisa

Shared Sessions Congress + Workshop		
Plenary Session		
ROOM D1 - Chairperson Giovanni Organtini		
9:00-9:20	Miriam Focaccia, The role of place in engagement with science: the new seat of “Enrico Fermi Historical Museum of Physics and Study and Research Centre”	
9:20-9:40	Susanna Bertelli, The Frascati National Laboratory Visitor Centre: a journey through the history of particle physics	
9:40-10:00	Elena Corradini, Educational paths dedicated to Physics organized in the portal of the Network of Italian University Museums	
10:00-10:20	Coffee break	
Parallel Sessions		
	ROOM 131 - Chair F. Bònoli History of Astronomy	ROOM D1 - Chair Leonardo Gariboldi History, Didactics and Epistemology
10:20-10:40	Paolo Lipari, The discovery of Atmospheric Neutrino Oscillations	Giuseppe Fera, The role of effective mass in electrical conduction
10:40-11:00	Raffaele Pisano, Reading the Discoveries of Gravitational Waves as New History of Physics Research Programme. Part Two	Vera Montalbano, Roland Eötvös: a key figure in modern physics, but also in geology and education
11:00-11:20	Simone Bianchi, Time signal in Florence	Laura Franchini, Joseph Weber and the first experiments in the detection of gravitational waves
11:20-11:40	Emanuela Colombi, Antonio Colla (1806-1857): osservatore astro-meteorologico dell’Università di Parma	Mattia Ivaldi, To the Moon and beyond–HYPE Space Matters
11:40-12:00	Flavia Marcacci, Proving the false. Method and logic of Giovanni Battista Riccioli	Alessandro Amabile, Le fonti ellenistiche dell’Almagesto di Tolomeo. Special Mention at the SISFA Prize 2019.
12:00-12:20	Paolo Palma, Mauro Gargano, Un archivio virtuale della corrispondenza di Annibale de Gasparis	Vincenzo Cioci, A Nature of Science Experiments Exploring on the Galilean Physics of the Motion
12:20-12:40	Valeria Zanini, The scientific and cultural heritage of Giuseppe Toaldo, 300 years after his birth	Paolo Bussotti, Newton’s Geneva Edition: Some Considerations on the Integral Calculus

12:40-14:00	LUNCH
Session: Connections between History and Didactics of Physics ROOM D1 - Chairperson Matteo Realdi	
14:00-14:30	Invited talk Carla Romagnino, La storia della scienza nei curricula formativi preuniversitari
14:30-15:00	Invited Talk Angelo Pagano, On the Newtonian concept of mass as “quantitas materiae”
15:00-15:20	Giovanni Organtini, A novel approach to physics teaching exploiting new technologies in conjunction with historically relevant artefacts
15:20-15:40	Marisa Michelini, Studenti di scuola secondaria studiano la gravità usando app su mobile
15:40-16:00	Coffee break
16:00- 16:20	Valentina Scotti, The LAB2GO project
16:20-16:40	Carla Aramo, The history of the cosmic ray discovery and their current role in the outreach activities
2 h	Roundtable “The contribution of history to the teaching of physics and astronomy” - Chairperson Lucio Fregonese Carla Aramo (INFN) Salvatore Esposito (Presidente SISFA) Alberto Meroni (Presidente AIF) Marisa Michelini (Uniud-URDF) Fabiano Minni (GSdF, AIF) Valeria Zanini (INAF)
18:40-18:50	Final remarks of the Congress and acknowledgments