

## Thursday 7 September - Afternoon

### S7A1A – Opening Ceremonies

**Thursday 7 September – 14:00 – 14:20 Aula Magna**

#### Welcome Addresses

- Massimo Guarnieri (*HISTELCON2023 General Co-Chair – University of Padua, Padua, Italy*)  
Donatella Lippi (*Delegate of the Rector for the Coordination of External Relations, University of Florence, Florence, Italy – President "Fondazione Scienza e Tecnica", Florence, Italy*)  
Vincenzo Piuri (*IEEE Region 8 Director – University of Milan, Milan, Italy*)  
Tiziana Tambosso (*IEEE Region 8 Conference Coordination Committee Chair*)  
Sergio Rapuano (*IEEE Italy Section Past-Chair – University of Sannio, Benevento, Italy*)  
Antonio Savini (*HISTELCON Steering Committee Chair – University of Pavia, Pavia, Italy*)

#### Technical and Social Program presentation

- Stefano Selleri (*HISTELCON2023 Technical Program Chair – University of Florence, Florence, Italy*)

### S7A2A – Plenary Session

**Thursday 7 September – 14:30 – 17:30 Aula Magna**

Session Chair: Ovidio M. Bucci (University of Naples Federico II, Naples, Italy)

- 14:30-15:00 *Karl Grandin (Director of the Center for History of Science at the Royal Swedish Academy of Sciences in Stockholm, Sweden)*  
From Nobile to Nobel: The heated discussions regarding the Prize to Owen Richardson [#1781]
- 15:00-15:30 *Luisa Cifarelli (University of Bologna and INFN-Bologna, Italy)*  
Einstein speaks Italian. Bologna 1921 [#9696]
- 15:30-16:00 *Francesco Fidecaro (University of Pisa and INFN, Pisa Section, Italy)*  
The Virgo experiment: a forty years effort from a scientific vision to a milestone discovery made possible by frontier technologies.
- 16:00-16:30 *Antonio Savini (Research Centre for the History of Electrical Technology University of Pavia, Italy)*  
Museums of Information Technology and Information Technology in Museums: A survey [#2251]
- 16:30-17:00 *Anna Giatti (Fondazione Scienza e Tecnica, Florence, Italy)*  
Paolo Brenni and the world of historical scientific instruments [#0486]
- 17:00-17:30 *Peter Kurz (Patent Attorney, in EP, CH, DE Schaffhausen, Switzerland)*  
Brunelleschi and Galilei: Super-Early Patents in Florence and Venice (#4623)

## Friday 8 September - Morning

### S8M1A – Science and Technology or Technology and Science? Part I

#### Friday 8 September – 9:10 – 10:50 Brunelleschi room

Session Chairs: David Michelson (The University of British Columbia, Vancouver, Canada)

- 09:10-09:30 *Natasa Zivic (University of Applied Sciences Leipzig Leipzig, Germany)*  
A Picture is worth Thousand Words: from Camera Obscura to Corona Detection Microscopes [#0723]
- 09:30-09:50 *Kartik Shreenath Bohra and Yoshita S Dharmadhikari (Electronic Products, The Boeing Company, Bangalore, India)*  
History of Fly by wire, The Tech That Expanded Human Horizons in Aviation [#1032]
- 09:50-10:10 *Alessandro Russo, Alessandro Liberalato and Sergio Canazza (University of Padua, Padua, Italy)*  
Reactivation/virtualization of the CSC system at the University of Padua [#1053]
- 10:10-10:30 *David Michelson (The University of British Columbia, Vancouver, Canada)*  
The Intermodal Surface Transportation Efficiency Act of 1991 [#2145]
- 10:30-10:50 *Massimo Guarnieri (University of Padua, Padua, Italy)*  
Evolutive waves in electrochemical batteries [#1874]

### S8M1B – Museums and collections and new technologies for creating catalogues and exhibitions. Part I

#### Friday 8 September – 9:10 – 10:50 Ghiberti room

Session Chairs: Antonio Savini (Research Centre for the History of Electrical Technology University of Pavia, Italy)  
Amy Bix (Iowa State University, Ames, Iowa, USA)

- 09:10-09:30 *Hajime Akiyama and Takayuki Shiose (National Institute of Technology, Fukui College, Fukui, Japan)*  
A Brief History of the Development and Diffusion of Mercury Rectifiers in Japan [#1392]
- 09:30-09:50 *Ruediger Hoffmann (Technische Universität Dresden, Dresden, Germany)*  
The Historic Acoustic-Phonetic Collection of TU Dresden after Finishing the Catalogue [#2602]
- 09:50-10:10 *Mario Casillo, Francesco Colace, Angelo Lorusso, Francesco Marongiu, Domenico Santaniello and Carmine Valentino (University of Salerno, Fisciano, Italy)*  
A novel architecture for enhancing museum visits through Recommender System, Digital Storytelling, and NFT [#3014]
- 10:10-10:30 *Sasha Disko-Schmidt and Frank Dittmann (Deutsches Museum, Munich, Germany)*  
Materializing the Dematerialized, or Thoughts on How to Exhibit Electricity Grids and Networks [#6059]
- 10:30-10:50 *Mario Casillo, Liliana Cecere, Francesco Colace, Angelo Lorusso, Domenico Santaniello and Carmine Valentino (University of Salerno, Fisciano, Italy)*  
Exhibition spaces in the Metaverse: a novel design approach [#6197]

### S8M1C – From the gigahertz dream to mobile wireless: how the seeds of 5G were planted

#### Friday 8 September – 9:10 – 10:50 Giotto room

Session Chairs: Gino Masini (Ericsson AB, Stockholm, Sweden)

- 09:10-09:50 *Stefan Parkvall (Ericsson AB, Stockholm, Sweden)*

Mobile Telecoms from 1G to 5G [#####]

- 09:30-09:50 *Peter Kurz<sup>1</sup> and Hugo Wyss<sup>2</sup> (<sup>1</sup>Patent Attorney, in EP, CH, DE Schaffhausen, Switzerland ; <sup>2</sup>Chair of Switzerland Life Members Affinity Group Solothurn, Switzerland)*  
Scientists at war: A patent lawsuit relating to VLF wireless technology during World War I [#3035]
- 09:50-10:10 *David Burigana and Alessandro Paccagnella (University of Padua Padua, Italy)*  
Cheap Eurochips. Electronics from the technological gap debate to the Common Market (1966-1987) [#4375]
- 10:10-10:30 *Probir Bondyopadhyay (Forensic Historian of Science and Technology Houston, Texas, USA)*  
Hundredth Anniversary of Marconi's Discovery of Daylight Waves [#6692]
- 10:30-10:50 *Eyup Kagan Sahin (Middle East Technical University, Ankara, Turkey)*  
The Projection of Industry 5.0 [#2604]

Coffee Break

## S8M2A – Science and Technology or Technology and Science? Part II

**Friday 8 September – 11:10 – 12:50 Brunelleschi room**

Session Chairs: David Michelson (The University of British Columbia, Vancouver, Canada)

- 11:10-11:30 *Enrico Bertolazzi<sup>1</sup>, Cecilia Frego<sup>2</sup>, Marco Frego<sup>3</sup>, Seyed Mohsen Hosseini<sup>3</sup> and Angelika Peer<sup>3</sup> (<sup>1</sup>University of Trento, Trento, Italy; <sup>2</sup>University of Pisa, Pisa, Italy; <sup>3</sup>Free University of Bozen-Bolzano, Bolzano, Italy)*  
The clothoid: a historical, literary and artistic introduction with applications to technology [#3272]
- 11:30-11:50 *Josep Sunol, Francesc Miralles and Andreu Vea (Universitat Ramon Llull, Barcelona, Spain)*  
A Vision of Impact Through Technological Change from Institutional Logic: The Telefónica Case. [#4693]
- 11:50-12:10 *Pierre-Yves Pièce (Bex, Switzerland)*  
Roland Pièce and the beginning of Radio Broadcasting in Switzerland [#7386]
- 12:10-12:30 *Jean-Marc Ginoux<sup>1</sup> and Riccardo Meucci<sup>2</sup> (<sup>1</sup>Aix Marseille Univ, Université de Toulon, CNRS, CPT, Marseille, France; <sup>2</sup>National Institute of Optics – CNR Florence, Italy)*  
From the singing arc to the triode [#8595]
- 12:30-12:50 *Probir Bondyopadhyay<sup>1</sup> and Lily Banerjee<sup>2</sup> (<sup>1</sup>Forensic Historian of Science and Technology Houston, Texas, USA; <sup>2</sup>Senior Research Associate, Houston, Texas, USA)*  
Alexander Graham Bell's Pioneering Initiatives with Semiconductor Diode Detector of Wireless Waves [#8814]

## S8M2B – Museums and collections and new technologies for creating catalogues and exhibitions. Part II

**Friday 8 September – 11:10 – 12:50 Ghiberti room**

Session Chairs: Antonio Savini (Research Centre for the History of Electrical Technology University of Pavia, Italy)

Amy Bix (Iowa State University, Ames, Iowa, USA)

- 11:10-11:30 *Allison Marsh (University of South Carolina, Columbia, South Carolina, USA)*  
Engineering Objects: How Museums Shape the History We Tell [#8406]
- 11:30-11:50 *Vasiliy Burov and Dmitry Soshnikov (Estonto Lab, Astana, Kazakhstan)*

FidoNet and Generative AI: A New Approach to Museumification of Historical Content Resources [#9227]

11:50-12:10 *Michael Geselowitz and Daniel Mitchell (IEEE History Center IEEE Piscataway, New Jersey, USA)*  
The IEEE Global Museum: The role of professional associations in museums devoted to the history of technology [#9804]

12:10-12:30 *Silvia Basaldella<sup>1</sup> and Amedeo Maddalena<sup>2</sup> (<sup>1</sup>President of Associazione Culturale per il "Museo Didattico di Storia dell'informatica" Padua, Italy; <sup>2</sup>Padua University, Padua Italy,)*  
The Collection of Computer History in Padua [#9922]

12:30-12:50 *Stefano Maddio, Giuseppe Pelosi and Stefano Selleri (University of Florence, Florence, Italy)*  
A Brief History of the Smith Chart [#0683]

S8M2C – Panel Meeting: Women step into technology: how it may change the history

**Friday 8 September – 11:10 – 12:50 Giotto room**

Organizers: Dajana Cassioli, Erika Pittella, Cristina Ponti (IEEE WIE Italy)

Moderators: Erika Pittella, Cristina Ponti (IEEE WIE Italy)

## Friday 8 September - Afternoon

### S8A1A – High tech developments in the history of radio astronomy. Part I

#### Friday 8 September – 14:10 – 15:50 Brunelleschi room

Session Chairs: Pietro Bolli (INAF - Arcetri Astrophysical Observatory, Florence, Italy)  
Luigina Feretti (INAF – Institute for Radioastronomy, Bologna, Italy)

- 14:10-14:30 *Ronald D. Ekers<sup>1</sup> and Claire Hooker<sup>2</sup> (<sup>1</sup>CSIRO Space & Astronomy, Sydney, Australia; <sup>2</sup>University of Sydney, Sydney, Australia, e-mail)*  
The Parkes Radio Telescope: how technological developments have driven discoveries in Radio Astronomy [#4819]
- 14:30-14:50 *Rustam Dagkesamanskii (Pushchino Radio Astronomy Observatory of the Lebedev Physical Institute of Russian Academy of Sciences, Pushchino, Moscow region, Russia)*  
Pushchino Radio Astronomy Observatory: shortly about history and instrumentation development [#0114]
- 14:50-15:10 *Yashwant Gupta (National Centre for Radio Astrophysics, Pune, India)*  
Technological Innovations and Historical Impact of the GMRT : a IEEE Milestone Facility [#415]
- 15:10-15:30 *Leonid Gurvits (Joint Institute for VLBI ERIC (JIVE), Dwingeloo, The Netherlands and Delft University of Technology Delft, The Netherlands)*  
A Brief History of Space VLBI [#2518]
- 15:30-15:50 *Germano Bianchi, Federico Perini and Giancarlo Setti (Institute of Radio Astronomy National Institute of Astrophysics, Bologna, Italy; University of Bologna Associate INAF-IR, Bologna, Italy)*  
A brief history of the Northern Cross Radio Telescope [#6655]

### S8A1B – Humanistic Studies. Part I

#### Friday 8 September – 14:10 – 15:50 Ghiberti room

Session Chairs: Fabio Grigenti (University of Padua, Padua, Italy)  
Alessandro Paccagnella (University of Padua, Padua, Italy)

- 14:10-14:30 *Probir Bondyopadhyay<sup>1</sup> and Pramita Banerjee<sup>2</sup> (<sup>1</sup>Forensic Historian of Science and Technology, Houston, Texas, USA; <sup>2</sup>Research Fellow, Houston, Texas, USA)*  
Liber Abaci (Modus Indorum) by Fibonacci - A Forensic Historian's Tribute [#1492]
- 14:30-14:50 *Amy Bix (Iowa State University, Ames, Iowa, USA)*  
More Alike or Different? Comparing Historical Patterns of Women and Gender in Science vs. Technology [#4817]
- 14:50-15:10 *Fabio Grigenti (University of Padua, Padua, Italy)*  
Is there such a thing as Techno-science? [#5861]
- 15:10-15:30 *Michela Amendola<sup>1</sup>, Donatella Lippi<sup>2</sup>, Fabrizio Argenti<sup>2</sup>, Roberto Carpi<sup>3</sup>, Costanza Cucci<sup>1</sup>, Salima Ikram<sup>4</sup>, Guido Landi<sup>2</sup>, Tommaso Mori<sup>2</sup>, Alessandro Riga<sup>2</sup>, Chiara Zini<sup>3</sup> and Andrea Barucci<sup>1</sup> (<sup>1</sup>Institute of Applied Physics "Nello Carrara" Italian National Research Council, Sesto Fiorentino, Italy; <sup>2</sup>University of Florence, Florence, Italy; <sup>3</sup>Azienda USL Toscana Centro, Florence, Italy; <sup>4</sup>The American University in Cairo, New Cairo, Egypt)*  
Application of CT imaging to humanistic studies: the case of an Egyptian cat mummy [#6712]
- 15:30-15:50 *Alexander Magoun (IEEE History Center IEEE Piscataway, New Jersey, USA)*  
A Brief Survey of Electronic Archaeology [#6910]

## S8A1C – The Italian contribution to the progress in information and communication technologies

### Friday 8 September – 14:10 – 15:50 Giotto room

Session Chairs: Maurizio Decina (Polytecnic of Milan, Milan, Italy)

Gabriele Falciasacca (University of Bologna, Bologna, Italy)

14:10-14:30 *Paolo Bonavoglia (Mathesis Venezia, Venice, Italy)*

Origins of modern cryptography and cryptanalysis [#9374]

14:30-14:50 *Barbara Valotti<sup>1</sup> and Cristiano Passerini<sup>2</sup> (<sup>1</sup>Fondazione Guglielmo Marconi, <sup>2</sup>Pontecchio Marconi Bologna, Italy; IEEE Member, Bologna, Italy)*

Rescuing Lost Souls at Sea: Marconi's Pivotal Role in the Birth of Public Protection and Disaster Relief [#3065]

14:50-15:10 *Gabriele Falciasacca (University of Bologna, Bologna, Italy)*

The second wireless revolution: the conquest of high frequencies [#3853]

15:10-15:30 *Marco Peroni<sup>1</sup>, Fabrizio Frezza<sup>2</sup>, Fiammetta Curcio<sup>3</sup> and Giorgio Koch<sup>4</sup> (<sup>1</sup>Associazione Arma Aeronautica, Rome, Italy; <sup>2</sup>“La Sapienza” University of Rome, Rome, Italy; <sup>3</sup>European Commission on local economic development issues, Roma, Italy; <sup>4</sup>Università Mercatorum, Rome, Italy)*

Marconi's last experiences on Radio Relay Links and their successive impact for the Italian Terrestrial and Space Microwave Telecommunications development [#4432]

15:30-15:50 *Marco Brancati and Antonio Saitto (Telespazio S.p.A., Rome, Italy)*

The Telespazio adventure from Space to Earth [#9467]

### Coffee Break

## S8A2Aa – High tech developments in the history of radio astronomy. Part II

### Friday 8 September – 16:10 – 16:50 Brunelleschi room

Session Chairs: Pietro Bolli (INAF - Arcetri Astrophysical Observatory, Florence, Italy)

Luigina Feretti (INAF – Institute for Radioastronomy, Bologna, Italy)

16:10-16:30 *Christopher Salter (Arecibo Observatory, Arecibo, Puerto Rico)*

The Arecibo 305-m Telescope: 57 Years of Unprecedented Discovery [#7294]

16:30-16:50 *Ralph Spencer (The University of Manchester, Manchester, UK)*

The Role of Technology in the Development of Very Long Baseline Astronomy [#1769]

## S8A2Ab – Humanistic Studies. Part II

### Friday 8 September – 17:10 – 17:50 Brunelleschi room

Session Chairs: Fabio Grigenti (University of Padua, Padua, Italy)

Alessandro Paccagnella (University of Padua, Padua, Italy)

17:10-17:30 *Jerzy Hickiewicz, Piotr Rataj and Przemysław Sadłowski (Historical Study Lab, Association of Polish Electrical Engineers, Opole, Poland)*

Lviv Roots of Polish Higher Educational Institutions in Electrical Engineering [#7081]

17:30-17:50 *Paolo Di Barba and Roberto Galdi (University of Pavia Pavia, Italy)*

The electrification of Italian railway network across the photographic archive of TIBB [#9162]

## S8A2B – Big Companies

### Friday 8 September – 16:10 – 17:50 Ghiberti room

Session Chairs: Mary Ann Hellrigel (IEEE History Center IEEE Piscataway, New Jersey, USA)

- 16:10-16:30 *Mitsuaki Oshima<sup>1</sup>, Takayuki Hayashi<sup>1</sup>, Shinichi Matsui<sup>1</sup>, Masahiro Fukui<sup>2</sup> and Isao Shirakawa<sup>3</sup>*  
(<sup>1</sup>Panasonic Holdings Corporation, Kadoma, Japan; <sup>2</sup>Ritsumeikan University Kusatsu, Japan; <sup>3</sup>University of Hyogo Kobe, Japan)  
History of World's First Commercialization of Image Stabilizers for Handheld Cameras [#2901]
- 16:30-16:50 *David Michelson (The University of British Columbia, Vancouver, Canada)*  
The Trans-Canada Microwave System [#3340]
- 16:50-17:10 *Thalita Nazaré and Erivelton Nepomuceno (Maynooth University, Maynooth, Ireland)*  
Tracing the Path: A Historical Perspective on Wind and Wave Energy's Progress [#5503]
- 17:10-17:30 *Mary Ann Hellrigel (IEEE History Center IEEE Piscataway, New Jersey, USA)*  
Landscapes of Technology (and some) Science: The AIEE and the Electrotechnical Community at the Louisiana Purchase Exposition and the Fourth International Electrical Congress [#7307]
- 17:30-17:50 *Massimo Guarnieri (University of Padua, Padua, Italy)*  
A glance at early hydropower [#7570]

## S8A2C – Radar History

### Friday 8 September – 16:10 – 17:50 Giotto room

Session Chairs: Alfonso Farina (Leonardo S.p.A. Consultant, Rome, Italy)  
Wolfgang Koch (Fraunhofer FKIE, Wachtberg, Germany)

- 16:10-16:30 *Alfonso Farina<sup>1</sup> and Luca Timmoneri<sup>2</sup>* (<sup>1</sup>Leonardo S.p.A. Consultant, Rome, Italy; <sup>2</sup>Leonardo spa, Rome, Italy)  
Adaptivity for radar signal processing: when research and business development join in a successful story [#945]
- 16:30-16:50 *Gaspare Galati (Tor Vergata University, Rome, Italy and CNIT National Inter-University Consortium for Telecommunications Rome, Italy)*  
Guglielmo Marconi and the Origin of Radar: Needed Clarifications [#4939]
- 16:50-17:10 *Filippo Giannetti (University of Pisa, Pisa, Italy)*  
The record-setting Marconian radio station in Coltano, Italy [#6753]
- 17:10-17:30 *Wolfgang Koch (Fraunhofer FKIE, Wachtberg, Germany)*  
On the Early History of Radar Data Fusion and Adaptive Radar Management in Germany [#7110]
- 17:30-17:50 *Federico Scannapieco (Leonardo SpA Nerviano (MI), Italy)*  
60 Years of Airborne Radar: Leonardo Heritage [#1450]

## Friday 8 September - Evening

**de' Bardi Restaurant – 20:00 – Via de' Bardi, 27**

## Saturday 9 September - Morning

### S9M1A – Foundational Research Part I

#### Saturday 9 September – 9:10 – 10:50 Brunelleschi room

Session Chairs: Giuseppe Bertuccio (Politechnic of Milan, Milan, Italy)  
Stefano Maddio (University of Florence, Florence, Italy)

- 09:10-09:30 *Giuseppe Bertuccio (Politechnic of Milan, Milan, Italy)*  
Emilio Gatti: the Life and the Worldwide Heritage of a Founding Father of Electronics for Physics [#1034]
- 09:30-09:50 *Rao R Morusupalli (HP Inc, Palo Alto, California, USA)*  
From Early Discoveries to a New Hypothesis: A Brief History of Atomic Magnetism and Magnetic Monopoles [#2754]
- 09:50-10:10 *Ian Robinson (National Physical Laboratory, Teddington, Middlesex, UK)*  
The Invention and Development of the Kibble Balance at NPL [#3445]
- 10:10-10:30 *Luca Callegaro (National Metrology Institute of Italy, Turin, Italy)*  
Giovanni Giorgi and the 2019 revision of the International System of units [#3896]
- 10:10-10:30 *Frank Dittmann and Sasha Disko-Schmidt (Deutsches Museum, Munich, Germany)*  
Electro-Culture: From the fringes to the core and back again [#5123]

### S9M1B – Italian academia and Italian industry in the early stages of computers

#### Saturday 9 September – 9:10 – 10:50 Ghiberti room

Session Chairs: Maristella Agosti (University of Padua, Padua, Italy)  
Giacomo Bucci (University of Florence, Florence, Italy)

- 09:10-09:30 *Sergiu-Alexandru Ionescu and Vlad Diaconita (Bucharest University of Economic Studies Bucharest, Romania)*  
Adapting to the Digital Age: An Inclusive Approach to Economic Informatics and Cybernetics Education [#6825]
- 09:30-09:50 *Mark Chen (Harvard University, Cambridge, Massachusetts, USA)*  
Reckoning with the Soroban Abacus in Early Modern and Modern Japan [#7607]
- 09:50-10:10 *Giovanni A. Cignoni (Project HMR, Pisa, Italy)*  
1954-1961: early Italian computers at the University of Pisa [#9385a]
- 10:10-10:30 *Maurizio Gazzarri (Project HMR, Pisa, Italy)*  
1954-1961: early Italian computers at the Olivetti [#9385b]
- 10:30-10:50 *Maristella Agosti (University of Padua, Padua, Italy)*  
Early Years of Computer Science at the University of Padua [#5178]

Coffee Break

### S9M2A – Foundational Research Part 2

#### Saturday 9 September – 11:10 – 12:50 Brunelleschi room

Session Chairs: Giuseppe Bertuccio (Politechnic of Milan, Milan, Italy)  
Stefano Maddio (University of Florence, Florence, Italy)



- 11:10-11:30 *Oleg Morozov, Gennady Morozov and Ilnur Nureev (Kazan National Research Technical University, Kazan, Russia)*  
From microwave technologies to microwave photonics: R&D Institute of Applied Electrodynamics, Photonics and Living Systems celebrates 35th anniversary [#5952]
- 11:30-11:50 *Giacomo Giannetti<sup>1,2</sup> and Ludger Klinkenbusch<sup>2</sup> (<sup>1</sup>University of Florence, Florence, Italy; <sup>2</sup>Kiel University, Kiel, Germany)*  
The contributions to electromagnetism achieved by Heinrich Hertz at Kiel University [#6444]
- 11:50-12:10 *Stefano Selleri (University of Florence, Florence, Italy)*  
The reception of Maxwell's Dynamical Theory in Italy through the pages of *Il Nuovo Cimento* [#7080]
- 12:10-12:30 *Alexander Nosich (O.Ya. Usikov Institute for Radiophysics and Electronics National Academy of Sciences of Ukraine, Kharkiv, Ukraine)*  
Beginning of Oceanography from Space: Orbital X-Band Side-Looking Radar of Cosmos-1500 [#7507]
- 12:30-12:50 *Marco Fiore and Marina Mongiello (Polytechnic University of Bari, Bari, Italy)*  
History of Blockchain Technology and its Impact in Social Good [#9723]

## S9M2B – Radio and Light Science in Russia and the Soviet Union (from A.S. Popov to nowadays)

### Saturday 9 September – 11:10 – 13:30 Ghiberti room

Session Chairs: Vladimir O. Gladyshev (Bauman Moscow State Technical University, Russia)  
Innocenzo M. Pinto (retired professor of Electromagnetics, OSA Fellow)

- 11:10-11:30 *Pavel A. Belov (School of Physics and Engineering - ITMO University, Russia)*  
Studies of Electromagnetic Metamaterials in Russia and Former USSR
- 11:30-11:50 *Aleksei P. Kiselev (St. Petersburg Department of V. A. Steklov Mathematical Institute of RAS, Russia), Ekaterina A. Zlobina (St. Petersburg State University, Russia)*  
High-Frequency Grazing Diffraction Theory. From Fock to the Present Day
- 11:50-12:10 *Sergey I. Ivashov (Bauman Moscow State Technical University, Russia)*  
Research, Development and Applications of Subsurface Radars in the USSR and Russia from the 60s to the Present Days
- 12:10-12:30 *Oleg A. Grigoriev, Victoria A. Alekseeva (Russian National Committee on Non-Ionizing Radiation Protection, Russia)*  
130 Years of Research on Bio-Medical Effects of Electromagnetic Fields: Key Stages for the Development of Scientific Knowledge
- 12:30-12:50 *Valery P. Mitrofanov (M.V. Lomonosov Moscow State University)*  
The Role of Vladimir Braginsky in the Development of the Theory and Practice of High-Precision Measurements
- 12:50-13:10 *Sergey P. Vyatchanin (M.V. Lomonosov Moscow State University)*  
The Romance of Quantum Measurements
- 13:10-13:30 *Sergey V. Makarov (ITMO University, Russia), Mikhail V. Lapine (University of Technology Sydney, Australia)*  
Selected Topics in Nanophotonics in Russia and the USSR

S9M3A – Closing Remarks

**Saturday 9 September – 13:30 – 13:40 Brunelleschi room**

Tiziana Tambosso      *(IEEE Region 8 Conference Coordination Committee Chair)*