

Possibilities of cooperation in Science, Technology and Innovation  
between Brazil and China

# 2021 Cooperation Forum **BRAZIL & CHINA** in Science, Technology and Innovation



From September 13th to 17th, 2021  
8:00 to 10:00 - Brasília time  
19:00 to 21:00 - China Central Time

Online event on the Zoom platform  
Confirm your presence and receive the link

## **Organizer**

New Technology Development Center - CAST  
Araucaria Foundation, Brazil  
Chinese Mathematical Society

## **Co-organizer**

Brazilian Society of Applied and Computational Mathematics (SBMAC)  
China Society for Computational Mathematics  
Brazilian National Council for the State Funding Agencies (CONFAP)  
International Cooperation Department, the Brazilian National Research Council (CNPq)  
Bureau of International Cooperation, National Natural Science Foundation of China  
Embassy of the People's Republic of China in the Federative Republic of Brazil  
Embassy of the Federative Republic of Brazil in China  
BRICS Technology Transfer Center  
International Technology Transfer Network (ITTN)  
Itamaraty's Innovation Diplomacy Program (PDI)  
Alliance of International Science Organization (ANSO)  
Songshan Lake Administrative Committee, City-hall of Dongguan  
Dongguan University of Technology  
West China Hospital, Sichuan University

## **Support:**

Dongguan South China Design Innovation Institute  
Network for International Cooperation on Technology Commercialization (NICTC)

# SCHEDULE



## Sept.13 (Monday) - The Opening Ceremony:

***Host China: Jinyun Yuan***

***Hostess Brazil: Eliane Segati Rios***

- José Roberto de Andrade Filho, Councilor of the Science, Technology and Innovation Section, Embassy of Brazil in Beijing
- Qin Jiuyi, Deputy Director of New Technology Development Center, China Association for Science and Technology (CAST)
- Celso de Tarso Pereira - Minister-Counselor of the Embassy of Brazil in Beijing
- Cao Jinghua, Executive Director of ANSO Secretariat, Alliance of International Science Organization
- Luis Fernando Machado - Head of the Technology Promotion Division I - Itamaraty's Science and Technology Directorate
- Maria Zaira Turchi, Director of the International Cooperation Department of the Brazilian national self government commission (CNPq)
- Wang Yong, President of Dongguan South China Design Innovation Institute
- Odir Dellagostin, Chairman of the National Joint Council of Brazilian state foundation commissions (CONFAP)
- Wang Jian, Director of Kunming Science and Technology Bureau (BRICS Technology Transfer Center)
- Frederico Salomão Duque Estrada Meyer, Brazilian Consul Ambassador in Guangzhou
- Ramiro Wahrhaftig, President of the Araucaria Foundation
- Signing ceremony for cooperation between South China Agricultural University and Araucaria Foundation

# SCHEDULE



## **Sept. 14 (Tuesday) - Agriculture & Water: *Host China: John Zhang/***

**Hostess Brazil: Eliane Segati Rios**

**19:00-19:15/ 08:00-08:15** Zhao Yong, deputy director of China Institute of Water Resources and Hydropower Research

**19:15-19:35/ 08:15-08:35** Adeney de Freitas Bueno – Embrapa Soja International Researcher and Articulator / Luis Guilherme Teixeira Crusiol- Visiting scientist linked to Embrapa Soja, currently in China with CAAS

**19:35-19:55/ 08:35-08:55** Liu Changsheng, chairman of the Institute of Geographical Sciences and Natural Resources, Chinese Academy of Sciences

**19:55-20:15/ 08:55-09:15** Yara Moretto, Head of the New Water Research and Innovation Arrangement

**20:15-20:30/ 09:15-09:30** Li Xinghua, vice president of Science and Technology Innovation Research Institute of China Environment Culture Promotion Association.

**20:30-21:00/ 09:30-10:00** **Topic Discussion**

## **Sept. 15 (Wednesday) - Advanced Medical Treatment and Digital Health: *Host***

**China: Jinyun Yuan/ Hostess Brazil: Eliane Segati Rios**

**19:00-19:15/ 08:00-08:15** Hu Jianzhong, Associate Dean of Xiangya Hospital, Central South University, and Chief Scientist of Chinese Key R&D Projects

**19:15-19:30/ 08:15-08:30** Alexandre Paschoal, Professor at the Department of Computer Science at the Federal University of Technology - Paraná (UTFPR)

**19:30-19:45/ 08:30-08:45** Huang Weihong, director of Ministry of Mobile Medical Education - China Mobile Joint Laboratory

**19:45-20:00/ 08:45-09:00** Lincoln de Assis Moura Júnior, Doutor, Imperial College / Londres, MSC Engenharia Biomédica Coppe / UFRJ, BSC Engenharia Elétrica, USP

**20:00-20:15/ 09:00-09:15** Shen Bairong, Executive Dean, Professor and Doctoral Supervisor of West China Hospital, Sichuan University

**20:15-21:00/ 09:15-9:30** **Topic Discussion**



## SCHEDULE

**Sept. 16 (Thursday) - Sustainable Energy & Innovation : Host China: John Zhang/  
Hostess Brazil: Eliane Segati Rios**

- 19:00-19:15/ 08:00-08:15** Chen Dongmin, Executive Deputy Director of Songshan Lake material laboratory in Guangdong Province
- 19:15-19:30/ 08:15-08:30** Luiz Pereira Ramos, Professor at the Department of Chemistry at UFPR
- 19:30-19:45/ 08:30-08:45** Qian Weiqiang, Vice President of China Invention Association, Dean of Foshan China invention Achievement Transformation Research Institute
- 19:45-20:00/ 08:45 - 09:00** Donato Gomes Aranda, Professor at the Department of Chemical Engineering at UFRJ
- 20:00-20:15/ 09:00-09:15** Bai Yu, deputy Director of Science & Technology Division, Guangzhou Institute of Energy Conversion (GIEC), Chinese Academy of Sciences
- 20:15-20:30/ 09:15 - 09:30** Li Yu (Alexander), German Certified Master Engineer, Vice Chairman of INFRAWIND and Eurasian Federation of New Energy and Sustainable Development
- 20:30 - 20:45/09:30 – 09:45** Luiz Márcio Spinosa – Scientific, Technological and Innovation Director at Araucaria Foundation
- 20:45-21:00/ 09:45-10:00** Topic Discussion

**Sept. 17 (Friday) - Genomics and Genetic Engineering: Host China: John Zhang/  
Hostess Brazil: Eliane Segati Rios**

- 19:00-19:15/ 08:00-08:15** Jiang Dunquan, Head of BD and R&D manager of Beijing Health Guard Biotechnology, Inc.
- 19:15-19:30/ 08:15-08:30** David Livingstone Alves Figueiredo, Professor of the Department of Medicine at UNICENTRO and President of IPEC-Institute for Cancer Research
- 19:30-19:45/ 08:30-8:45** Sun Qiangming, Researcher of Institute of Medical Biology Chinese Academy of Medical Science
- 19:45-20:00/ 08:45-09:00** Kong Qingpeng, Researcher of Kunming Institute of Zoology.CAS
- 20:00-20:15/ 09:00-09:15** Tsen Chung Kang (Genome Valley)
- 20:15-20:50 / 09:15-09:50** Topic Discussion
- 20:50-21:00/ 09:50-10:00** Closing speech by Jinyun Yuan, Chairman of the Organizing Committee of CHINA-BRAZIL Science Technology and Innovation Cooperation Forum, Academician of Brazilian Academy of Sciences).



## Event hosts' résumés

### **Eliane Segati Rios**

Is Araucaria Foundation advisor for international projects, besides being in charge of the International Office at the State University of Northern Parana (UENP), Brazil, where she is a Phd professor in Languages Studies. Eliane is the State Coordinator of Parana speaks Foreign Languages Program (English and French), the President of the International Chamber of Parana Association of State Universities (APIESP), and member of the International Chamber of the Brazilian Association of Rectors of State and Municipal Universities (ABRUEM). Dr. Eliane carries out research on English as a foreign language, English teacher's education, internationalization of the curriculum, internationalization at home and the internationalization process and impact in Brazilian higher education context. Eliane was the Vice-President of the Brazilian Association for International Education (FAUBAI), and has already integrated international missions representing both the country and the state.

### **Jinyun Yuan**

Graduated in Mathematics - Nanjing Institute of Technology (1982) and Ph.D. in Mathematics from the National Institute of Pure and Applied Mathematics (1993). He is currently a full professor at the Federal University of Paraná and distinguished professor at the Dongguan Technological University (temporary), an expert member of the IMPA multi-ministry evaluation committee (2010-2020). Co-Editor-in-Chief of the Academic Journal of Mathematics Science, Associate Editor of the AMC and CAM, and member of the American Journal of Computational Mathematics editorial board, Coordinator of Cooperation with China at the Araucaria Foundation, Editor-in-Chief of the Applied and Computational Mathematics Series at SBM.

### **John Zhang**

Since 2013, he as a general secretary of International Technology Transfer Network (ITTN), Mr. John ZHANG committed to the international technology transfer cooperation, science and technology commercialization, technology transfer professionals training and related knowledge system construction. He promote ITTN established 35 countries 610 institutions of international technology transfer network, accumulative total to undertake commissioned by Ministry of Science and Technology of the central ministries and commissions such as the BRICS Technology Transfer Center, China-Italy Technology Transfer Center and other inter-governmental platforms for international technology transfer cooperation have carried out more than 26 special projects, continuous innovative technology to implement the introduction of overseas projects each year nearly 3000. In addition, ITTN has become one of the national level international technology transfer center which identified by Ministry of Science and Technology in 2018.

# Panelist Résumés - Sept. 14 (Tuesday) - Agriculture & Water



## **Zhao Yong,**

Professor-level senior engineer, deputy director of the Preparatory Office of the Key Laboratory of China Institute of Water Resources and Hydropower Research, deputy director of the Institute of Water Resources, and technology talent of China Institute of Water Resources and Hydropower Research. Dr. Zhao's main research interests are water cycle and its associated processes, rational allocation of water resources, water resources planning and management.

## **Liu Changsheng,**

Researcher of ETS Environment and Agricultural Bioengineering Technology Research Center, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, distinguished researcher of Yellow River basin ecological protection and high-quality development engineering technology center of Yellow River Conservancy Commission, and chairman of Tianjin ETS biotechnology company.

## **Dr. Li Xinghua,**

Vice - president of Science and Technology Innovation Research Institute of China Environment Culture Promotion Association, distinguished expert of China Green Development Alliance, director and researcher of Gas Pollution Prevention and Control Technology Laboratory of Beijing Collaborative Innovation Research Institute

## **Adeney de Freitas Bueno,**

Embrapa Soybean Researcher, Doctor in Entomologist, Dr Adeney has dedicated his career to study the biological control of pests and other Integrated Pest Management strategies. Since 2019 he is also the International coordinator of Embrapa Soybean, responsible for developing new international partnerships with scientific institutions around the world to in order to improve and develop new soybean sustainable production strategies.

## **Luís Guilherme Teixeira Crusiol ,**

Is currently a visiting researcher at the Chinese Academy of Agricultural Sciences (Key Laboratory of Agricultural Remote Sensing, Ministry of Agriculture – Beijing, China) and develops research in cooperation with the Department of Agronomy – State University of Maringá (Brazil) and Embrapa Soybean – National Soybean Research Center (Brazilian Agricultural Research Corporation – Brazil). His research focus is in remote sensing for crop monitoring (including water status determination, plant phenotyping, genotype classification and yield prediction and mapping) using multispectral, hyperspectral and thermal data from spaceborne, airborne, UAV-based, and ground-based platforms. Dr. Crusiol received the B.Sc. degree in Geography from the State University of Londrina (Paraná State, Brazil) and the M.Sc. and Ph.D. degrees in Agronomy from the State University of Maringá (Paraná State, Brazil).



## **Yara Moretto**

Is graduated in Biological Sciences at the Universidade Estadual de Maringá, master and doctorate in Ecology of Continental Aquatic Environments through the Postgraduate Program in Ecology of Continental Aquatic Environments (PEA) at the Universidade Estadual de Maringá. Associated Professor at the Federal University of Paraná, Palotina Sector, since 2011. Professor of the Postgraduate Program in Aquaculture and Sustainable Development and of the Post Graduate Program of Engineering and Environmental Technologie. Director at the Palotina Campus of the Universidade Federal do Paraná; Director at the Regional of Tropical Water Research Alliance at Paraná state and vice-president of the Tropical Water Research Alliance.

## **Panelist Résumés - Sept. 15 (Wednesday) - Advanced Medical Treatment and Digital Health**

### **Hu Jianzhong,**

Profesor, Chief Physician, Ph.D. supervisor of Medicine information and Clinical Medicine, deputy director of XiangYa Hospital Central South University, the head of joint key laboratory of Ministry of education and China mobile in mobile medical and the director of the Digital Medical Research Center of Central South University, Member in Spine group of Orthopaedic Society of Chinese Medical Association, Professional Committee of Spinal Surgery of Hunan Medical Association and Orthopedics of Hunan Medical Association, Member of Chinese Health Information Association (CHIA) and China Hospital Information Management Association (CHIM).

### **Alexandre Paschoal**

Is an Associate Professor at the Department of Computer Science at the Federal University of Technology – Paraná (UTFPR), Brazil. He received his PhD in Bioinformatics at the University of São Paulo (2012) and Postdoctoral at the University of Leipzig, Germany (2016-17). His is member of the Pattern Recognition and Bioinformatics Lab ([bioinfo.cp.utfpr.edu.br/](http://bioinfo.cp.utfpr.edu.br/)). His research includes bioinformatics, data integration and data science. The idea is to develop method to understand biological data from heterogeneous public data in any biological system (e.g., to know more about diseases and health applications).

### **Huang Weihong**

Ph.D., Professor, Executive Deputy Director of joint key laboratory of Ministry of education and China mobile in mobile medical of Xiangya Hospital of Central South University. From 2002 to 2014, he served as a faculty member in many universities in the UK. Since 2005, he initiated the mHealth research for mobile medical care in the world. At present, he mainly focuses on the research and application of mobile medical, big data, artificial intelligence, and Internet of Things technologies in the fields of medical health and solution to population aging.



**Lincoln de Assis Moura Júnior,**

PhD, Imperial College/London, MSC Biomedical Engineering COPPE/UFRJ, BSC Electrical Engineering, USP. Former head of R&D at the Heart Institute/FMUSP and CIO for the USP Medical School Hospital, Led from conception to deployment of São Paulo City Health Information System, which includes some 800 facilities and 20 million people. That project was granted an award at JavaOne 2005. As a PAHO consultant, led the construction of the eHealth Strategy for Brazil, a formal National Health System document, published in 2017. Served as a Chair of several Brazilian Associations and former President of IMIA, the International Medical Informatics Association ([www.imia.org](http://www.imia.org)),

**Shen Bairong,**

Executive Dean, Professor and Doctoral Supervisor of West China Hospital, Sichuan University. Bairong Shen received his PHD degree in Physical Chemistry from Fudan University in 1997, He started his bioinformatics research in the June of 1999 and got postdoctoral training in University of Tampere, Finland, after that he was recruited as assistant/associate professor of systems biology in the beginning of 2014. He returned to China in June of 2008 and established a Center for Systems Biology in Soochow University and acted as the director of the center. He published more than 150 scientific papers and 4 books in international journals or presses. He acted as peer reviewer for more than 30 journals such as, Bioinformatics, Nucleic Acids Research, Clinical Chemistry, Nature Communications, etc. He is the affiliated faculty at Institute for systems biology, Seattle. He is the founding chair for the International Conference on Translational Biomedical Informatics (ICTBI). He was appointed as the professor and executive director general of Institutes for Systems Genetics, West China Hospital, Sichuan University, China.

**Painelist Résumés - Sept. 16 (Thursday) - Sustainable Energy & Innovation :**

**Dongmin Chen,**

Executive Deputy Director of Songshan Lake Materials Laboratory in Guangdong Province, member of the Advisory Board of the Director of the Rowland Research Institute of Harvard University and Founder, CTO of Silicon Valley Miradia Inc. From 2016 to 2019, he served as the preparatory team leader of Innovation and Entrepreneurship of Peking University as well as the scholar of project of thousands of scholars introduced by Peking University, chair professor of the Institute of Advanced Interdisciplinary Research, responsible for the establishment of Peking University's innovation and entrepreneurship education and research institutions; From 2012 to 2016 he undertook the principal of Peking University Industrial Technology Research Institute, Minister of Science and Technology Development Department and also presided over Peking University's industry-university-research work, while participating in the management of seed funds, angel funds and venture capital funds that cooperate with Peking University incubators.





**Luiz Pereira Ramos,**

Full professor at the Department of Chemistry, UFPR, until 2019. Senior Professor at UFPR since 2020. Co-editor of 2 books and 2 special issues, with a publication record of 165 papers, 23 chapters and 17 patent applications. Associate Editor of ACS Energy & Fuels since 2012.

**Weiqiang Qian,**

Vice President of China Invention Association, Dean of Foshan China Invention Achievement Transformation Research Institute, Associate Dean of ENN Science and Technology Development Co., Ltd. Weiqiang Qian is a Peking University EMBA master and a senior economist. He has been engaged in high-tech innovation for a long time, committed to key technological breakthroughs and industrial innovation practices in major areas of national demands such as environmental protection, renewable energy, microalgae and bio poly production. He has played an important role in promoting international exchange and industrial cooperation, and achieved fruitful results.

**Donato Gomes Aranda,**

Professor at the Department of Chemical Engineering at UFRJ since 1997. Co-author of 120 articles, 8 chapters and 22 patent registrations. Scientist awarded with several orders of scientific merit and technical consultant for 12 industrial activities in Brazil.

**Bai Yu, Profesor,**

Deputy Director of Science & Technology Division, Guangzhou Institute of Energy Conversion (GIEC), Chinese Academy of Sciences. Dr. Yu BAI earned her BS in Environmental Engineering from South China University of Technology in 2003 and she continued her graduate study in France and obtained her MS in Environmental Engineering and Sustainable Architecture in 2005 and PhD in Civil Engineering & Habitat Science in 2009 from the University of Savoie Mont-Blanc and France National Institute for Solar Energy. She has worked in the fields of hybrid solar thermal and photovoltaic systems, low carbon building related technologies and optimization, energy strategy and low carbon development.

**Li Yu (Alexander),**

German Certified Master Engineer, Vice Chairman of INFRAWIND and Eurasian Federation of New Energy and Sustainable Development. Since 2006, he has undertaken the project leader of CHINA GATE BERLIN, the consultant of the German Infrastructure Construction Association INFRANEU General Association for Infrastructure and Sustainable Development, and the plenipotentiary of Asian affairs. Since 2008, he has served as one of the founders and vice chairman of INFRAWIND EURASIA e.V., a sister institution of INFRANEU. From 2009 to June 2011, as the vice chairman of INFRAWIND and the INFRAWIND Eurasian Federation of New Energy and Sustainable Development became the strategic partner of CRES China Renewable Energy Society in Germany.



### **Luiz Márcio Spinosa,**

Chief of Science, Technology and Innovation Office at Araucaria Foundation. He is Visiting Scholar at Haas School of Business, University of California Berkeley, Deputy Convener of the National Innovation Systems and Models of the Triple Helix Association issued from Stanford University. and Visiting Professor at Federal University of Santa Catarina (UFSC) in Brazil. His present work concerns theoretical and field consulting on: i) public policies, management practices and processes for shaping innovation and entrepreneurship ecosystems, ii) innovation, entrepreneurship and knowledge representation and iii) the mutually effects of smart cities and innovation ecosystems. He coordinated more than 50 technological development projects in Brazil and abroad, with more than a hundred published articles.

### **Donato Gomes Aranda,**

Professor at the Department of Chemical Engineering at UFRJ since 1997. Co-author of 120 articles, 8 chapters and 22 patent registrations. Scientist awarded with several orders of scientific merit and technical consultant for 12 industrial activities in Brazil.

## **Painelist Résumés - Sept. 17 (Friday) - Genomics and Genetic Engineering**

### **Jiang Dunquan,**

Head of Business Development, Beijing Health Guard Biotechnology, Inc. Dr. Jiang graduated from Nankai University, obtained a doctor's degree in Structural Biology and bachelor's degree in Physics. He work in Beijing Health Guard Biotechnology, Inc. as a Head of BD since 2020 and R&D manager since 2016. He led the talks with R-Pharm JSC on introduction of the company's nonavalent HPV vaccine into Russia, negotiated and finalized all collaboration Agreements. He is leading the development of an RSV vaccine, identified a candidate that induces potent neutralizing antibody responses in mice.

### **David Livingstone Alves Figueiredo,**

Head and Neck Surgeon. Associated Professor at the Department of Medicine, UNICENTRO, since 2012. Coordinator of Medical Residence-UNICENTRO, SINCE 2015. Publication Records of 35 papers, 2 chapters and 1 patent application. President of IPEC-Institute for Cancer Research. Associated Editor of Heighpubs Otolaryngology and Rhinology, International Journal of Otorhinolaryngology and International Journal of Otolaryngology and Head & Neck Surgery.



### **Sun Qiangming,**

Researcher of Institute of Medical Biology Chinese Academy of Medical Science. Researcher of Institute of Medical Biology Chinese Academy of Medical Science, PhD in pathogenic biology, bachelor of economics, master and doctoral supervisor of Peking Union Medical College. In 2002, he received a doctorate degree from Peking Union Medical College. In 2011, he was qualified as a researcher in pathogenic biology of the Ministry of Health. In February 2005, he went to the University of Maryland (US) for post-doctoral research and work, and member of the American Society for Microbiology (ASM). As a subject leader and Molecular Epidemiology Executive Deputy Director of the Joint Laboratory of Diseases served as the Institute of Medical Biology (Kunming)/Institute of Pathogen Biology (Beijing) Chinese Academy of Medical Sciences since 2009.

### **Tsen Chung Kang**

Undergrad from the University of São Paulo (1986), Master's in Electrical Engineering from the University of São Paulo (1990) and Ph.D. in Computer Engineering - Carnegie Mellon University (1995). Director of Research and New Business at Jacto Group. Works in corporate governance, strategic planning and technological innovation, mainly in the following areas: Big Data, Machine Learning, IoT, Analytics, precision agriculture, knowledge agriculture and logistics.

### **Kong Qingpeng,**

Researcher of Kunming Institute of Zoology.CAS. Doctoral supervisor, State Key Laboratory of Genetic Resources and Evolution, PI. 43 papers and reviews have been published in Am J Hum Genet, PNAS, Hum Mol Genet and Mol Biol Evol, among which 17 are the first author or corresponding author (cumulative impact factor =97.775). Co-authored 26 papers and reviews (cumulative impact factor =174.506). His published research papers have been cited for 1242 times by SCI journals such as Nature, Science, Am J Hum Genet and PNAS, and have a certain influence on the international research field of human mitochondrial DNA.