近地小行星探测与防御技术论坛
Near-Earth Asteroid Detection and Defence Technology Forum

会议手册
Conference Brochure

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01

会议信息
Information

为促进国际科技创新合作，深化全球科技治理，引领全球科技发展，凝聚国际共识，搭建主场科技外交国际平台，中国科学技术协会于2026年10月21日至23日在中国重庆举办2026世界科技与发展论坛。期间，国际深空探测学会将于10月23日举办“近地小行星探测与防御技术论坛”，聚焦近地小行星观测、预警、防御等技术方向，为全球专家学者搭建国际交流合作平台，分享前沿研究进展，助力提升人类应对近地天体撞击风险的协同能力。

To promote international cooperation in science and technology innovation, deepen global science and technology governance, advance global scientific and technological development, and foster international consensus, the China Association for Science and Technology will host the 2026 World Science and Technology Development Forum in Chongqing, China, from October 21 to 23, 2026.

During the forum, the International Deep Space Exploration Association will hold the Near-Earth Asteroid Detection and Defence Technology Forum on October 23. Focusing on key technological areas such as near-Earth asteroid observation, early warning, and defence, the forum will provide an international platform for experts and scholars worldwide to exchange ideas, share cutting-edge research findings, and strengthen international collaboration, thereby enhancing humanity’s collective capacity to address the risks posed by near-Earth object impacts.

时间地点
Date and Venue

2026年10月23日(星期五)
Date: Friday, October 23, 2026

14:00-18:00
Time: 14:00–18:00

中国重庆·科学会堂
Venue: Chongqing Science Hall, China

组织架构
Organizing Structure

主办单位:
HOSTED BY

中国科学技术协会
China Association for Science and Technology

重庆市人民政府
Chongqing Municipal People’s Government

承办单位:
ORGANISED BY

国际深空探测学会
International Deep Space Exploration Association

协办单位:
CO-ORGANISED BY

深空探测实验室
Deep Space Exploration Laboratory

重庆天文学会
Chongqing Astronomical Society



02

会议日程
Agenda

时 间 Time	内 容 Content
	主持人：姚建廷 国际深空探测学会常务副秘书长 Moderator: Mr. Yao Jianting, Executive Deputy Secretary-General, International Deep Space Exploration Association
14:00-14:05	嘉宾致辞 胡朝斌 国际深空探测学会副理事长、深空探测实验室副主任 Opening Remarks Mr. Hu Zhaobin Vice Chairman of the International Deep Space Exploration Association and Deputy Director General of the Deep Space Exploration Laboratory
14:05-14:20	**报告一：《小行星与陨石轰击对月球基地的影响研究》 报告人：谢更新** 教育部深空探测联合研究中心常务副主任 重庆大学航空航天学院、空天院院长，重庆天文学会理事长 **Report 1: Study on the Impact of Asteroid and Meteorite Bombardment on Lunar Bases** **Speaker: Prof. Xie Gengxin** Executive Deputy Director, Collaborative Innovation Center for Deep Space Exploration of the Ministry of Education; Dean, School of Aeronautics and Astronautics, and Dean, Institute of Aerospace Science and Technology, Chongqing University; Chairman, Chongqing Astronomical Society
14:20-14:35	**报告二：《法国行星防御活动简介》 报告人：高明宇(Mathieu Grialou)** 法国国家空间研究中心（CNES）驻华代表；法国驻华大使馆空间参赞 **Report 2: Introduction to Planetary defence activities in France** **Speaker: Mr. Gao Mingyu (Mathieu Grialou)** CNES Representative in China; Counsellor for Space Affairs, Embassy of France in China

14:35-14:50	**报告三：《小行星防御与利用》 报告人：陈琦** 深空探测实验室总工程师兼系统研究院院长 中国探月工程嫦娥八号任务副总设计师 **Report 3: Asteroid Defence and Utilisation** **Speaker: Prof. Chen Qi** Chief Engineer of the Deep Space Exploration Laboratory and Dean of its Systems Research Institute; Deputy Chief Designer of the Chang'e-8 Mission, China Lunar Exploration Program
14:50-15:05	**报告四：《针对威胁性小行星的行星防御 ——一项真正的国际事业》** **报告人：Gonzalo Tancredi 教授** 乌拉圭共和国大学正教授兼天文学系主任 **Report 4: Planetary Defence against threatening asteroids: a truly international endeavor** **Speaker: Prof. Gonzalo Tancredi** Full Professor and Head of the Department of Astronomy, Universidad de la República, Uruguay
15:05-15:20	**报告五：《地基雷达小行星监测预警研究进展与展望》 报告人：丁泽刚** "中国复眼"深空探测雷达项目负责人，北京理工大学教授、博士生导师，雷达技术研究院副院长，2025年IET国际雷达会议大会主席 **Report 5: Progress and Prospects in Ground-based Radar Monitoring and Early Warning of Asteroids** **Speaker: Prof. Ding Zegang** Project Leader of the “China Fuyan” (Compound Eye) Deep Space Exploration Radar; Professor and Doctoral Supervisor, Beijing Institute of Technology; Deputy Director, Radar Technology Research Institute; General Chair, 2025 IET International Radar Conference
15:20-15:35	**报告六：《南美赤道地带一处疑似撞击坑的初步研究》 报告人：米尔顿·拉米雷斯** 厄瓜多尔研究、技术开发与空间创新部 主任 **Report 6: Preliminary Study of a Possible Impact Crater in the Equatorial Zone of South America** **Speaker: Mr. Milton Ramírez** Head of Research, Technological Development and Space Innovation, Instituto Geográfico Militar (IGM), Ecuador
15:35-15:45	茶歇 Tea Break
15:45-16:00	**报告七：《天基与地基系统协同探测近地空间中的十米级小行星》** **报告人：安德烈·舒加罗夫 Andrey Shugarov）** 俄罗斯科学院天文学研究所（INASAN）实验天文学系 研究员 **Report 7: Synergy of space-born and ground-based systems to detect decameter size asteroid in near Earth Space** **Speaker: Mr. Andrey Shugarov** Scientist, Department of Experimental Astronomy, Institute of Astronomy of the Russian Academy of Sciences (INASAN)

16:00-16:15	**报告八：《近地小行星防御的可行性研究》　报告人：顾征** 北京空间飞行器总体设计部研究员，首批航天科技集团青年拔尖人才 **Report 8: Feasibility Study of Near-Earth Asteroid Defence** **Speaker: Prof. Gu Zheng** Research Fellow, Beijing Institute of Spacecraft System Engineering (BISSE); among the first batch of Young Top-notch Talents of China Aerospace Science and Technology Corporation (CASC)
16:15-16:30	**报告九：《智利首次新鲜陨石回收探索》** **报告人：罗莎·凯瑟琳·维埃拉·比利亚雷亚尔（Rosa Katherine Vieira Villarreal）** 阿塔卡马大学天文与行星科学研究所副教授 **Report 9: FRIPON Andino: towards the first recovery of a fresh meteorite in Chile** **Speaker: Prof. Rosa Katherine Vieira Villarreal** Associate Professor, Institute of Astronomy and Planetary Sciences, Universidad de Atacama, Chile
16:30-16:45	**报告十：《太阳系多天体参考系及高精度测定轨》　报告人：宋叶志** 中国科学院上海天文台研究员，博士生导师，上海交通大学航空航天学院，兼职博导 **Report 10: Multi-body Reference Frames of the Solar System and High-Precision Orbit Determination** **Speaker: Prof. Song Yezhi** Professor and Doctoral Supervisor, Shanghai Astronomical Observatory, Chinese Academy of Sciences; Adjunct Doctoral Supervisor, School of Aeronautics and Astronautics, Shanghai Jiao Tong University
16:45-17:00	**报告十一：《APSCO在近地天体探测与防御领域的活动》** **报告人：甘图格斯·策格米德（Gantugs Tsegmid）** 亚太空间合作组织（APSCO）战略规划与项目管理部副总干事 **Report 11: APSCO's Activities on Near-Earth Object Detection and Defence** **Speaker: Mr. Gantugs Tsegmid** Deputy Director General, Department of Strategic Planning and Program Management, Asia-Pacific Space Cooperation Organization (APSCO)
17:00-17:15	**报告十二：小行星撞击成坑及溅射粉尘扩散过程研究　报告人：刘芹芹** 中国科学院国家空间科学中心九章C类人才 青年专家 **Report 12: Study on Asteroid Impact Cratering and the Diffusion of Ejected Dust** **Speaker: Prof. Liu Qinqin** Young Expert, Jiuzhang Class-C Talent Programme, National Space Science Center, Chinese Academy of Sciences

17:15-17:30	**报告十三：《面向近地天体（NEO）一体化探测、预警与响应部署的地月空间架构》** **报告人：阿萨兰·穆罕默德（Arsalan Muhammad）** 北京航空航天大学 青年学者 **Report 13: A Cislunar Architecture for Integrated NEO Detection, Early warning and Response staging** **Speaker: Dr. Arsalan Muhammad** Doctoral scholar at Beihang University, China
17:30-17:45	**报告十四：《利用量子信息信道保护地球免受小行星危害——俄罗斯与中国的战略伙伴关系》** **报告人：玛莉雅·巫力阳诺娃（Maria Ulyanova）** 俄罗斯科学院东方学研究所 航天工作组 学术秘书 **Report 14: Protection of the Planet from Asteroid Hazard Using a Quantum Information Channel – A Strategic Partnership between Russia and China** **Speaker: Dr. Maria Ulyanova** Academic Secretary, Working Group on Space, Institute of Oriental Studies, Russian Academy of Sciences
17:45	会议结束 Close of the Forum

03

论坛主席
Chair of the Forum



吴伟仁 Wu Weiren

吴伟仁，中国深空测控领域奠基人和深空探测事业主要开拓者之一，中国工程院院士，国际深空探测学会理事长、深空探测实验室主任，是中国深空探测领域战略科学家。现任中国探月工程总设计师，全面负责探月工程总体技术设计与工程实施，率领团队实现了我国首次地外天体软着陆（嫦娥三号任务）、国际首次月背软着陆（嫦娥四号任务）、中国首次月面采样返回（嫦娥五号任务）以及首次火星探测‘绕、落、巡’一步完成（天问一号任务）。国际天文学联合会将国际永久编号281880小行星命名为“吴伟仁星”。

Wu Weiren is a pioneer in China’ s deep space tracking, telemetry and control systems and one of the principal pioneers of the country’ s deep space exploration program. He is a member of the Chinese Academy of Engineering, President of the International Deep Space Exploration Association, and Director of the Deep Space Exploration Laboratory. He is a leading strategic scientist in China’ s deep space exploration field.He currently serves as Chief Designer of China’ s Lunar Exploration Program, with overall responsibility for its technical design and engineering implementation. Under his leadership, his team has achieved several major milestones, including China’ s first soft landing on an extraterrestrial body (Chang’ e-3 mission), the world’ s first soft landing on the far side of the Moon (Chang’ e-4 mission), China’ s first lunar surface sample-return mission (Chang’ e-5 mission), and China’ s first Mars exploration mission to accomplish orbiting, landing and roving in a single endeavor (Tianwen-1 mission).The International Astronomical Union has named asteroid 281880, bearing the permanent international designation 281880, “Wu Weiren” in his honor.

论坛副主席
Vice Chair of the Forum



史平彦 Shi Pingyan

史平彦，现任深空探测实验室执行主任。长期从事空间飞行器有效载荷、卫星应用电子系统技术研发及航天工程指挥管理工作，历任五院院长助理、副院长，中国星网系统研究院有限公司董事长，中国卫星网络集团公司科技委副主任等职务。作为副总指挥，组织开展我国“卫星互联网工程”重大专项的设计、论证与部署；参加载人航天交汇对接、嫦娥二号、嫦娥三号、北斗导航等几十项星船任务研制。先后荣获国防科技进步一等奖一次、二等奖2次，荣立载人航天一等功一次。

Shi Pingyan currently serves as Executive Director of the Deep Space Exploration Laboratory. He has long been engaged in the research and development of spacecraft payloads and satellite application electronic systems, as well as in the command and management of aerospace engineering. He has previously served as Assistant to the President and Vice President of the China Academy of Space Technology, Chairman of China SatNet System Research Institute Co., Ltd., and Deputy Director of the Science and Technology Committee of China Satellite Network Group Co., Ltd. As Deputy Chief Commander, he organized the design, demonstration, and deployment of China’ s Satellite Internet Project. He has participated in the development of dozens of satellite and spacecraft missions, including manned space rendezvous and docking, Chang’ e-2, Chang’ e-3, and BeiDou Navigation. He has received one First Prize and two Second Prizes of the National Defense Science and Technology Progress Award, and was awarded a First-Class Merit Citation for Manned Spaceflight.

致辞嘉宾
Opening Speaker



胡朝斌 Hu Zhaobin

胡朝斌，现任国际深空探测学会副理事长、深空探测实验室副主任，曾任国家航天局探月与航天工程中心副主任、海南文昌国际航天城管理局副局长。长期从事我国深空探测发展战略与规划、探月与深空探测重大专项大总体管理工作。

Mr. Hu Zhaobin is Vice Chairman of the International Deep Space Exploration Association and Deputy Director General of the Deep Space Exploration Laboratory. He was Deputy Director of the Lunar Exploration and Space Engineering Center of CNSA and Deputy Director of the Hainan Wenchang International Space City. He has long been engaged in the development of strategy and planning for China's deep space exploration, and in the management of major lunar and deep space exploration projects.

主持嘉宾
Moderator



姚建廷 Yao Jianting

姚建廷，现任国际深空探测学会常务副秘书长（主持工作）、海牙常设仲裁法院外空事务科技专家，曾任国家航天局国际合作司副司长、航天五院511所常务副所长、国家航天局外事司航天合作处处长。2023年度获中国航天贡献奖，2016年度获航天科技集团航天贡献奖，2008年获国家航天局首次月球探测突出贡献奖等。

Mr. Yao Jianting is the Executive Deputy Secretary-General of the International Deep Space Exploration Association, and a Scientific Expert on Outer Space Activities at the Permanent Court of Arbitration in The Hague. He previously served as Deputy Director-General of the Department of International Cooperation of the China National Space Administration (CNSA), Executive Deputy Director of the Beijing Institute of Spacecraft Environment Engineering (511 Institute) of the China Academy of Space Technology, and Director of the Division of Aerospace Cooperation of the Department of Foreign Affairs of CNSA. He was honoured with the China Aerospace Contribution Award in 2023, the CASC Aerospace Contribution Award in 2016, and the Outstanding Contribution Award for China's First Lunar Exploration Mission from CNSA in 2008.

近地小行星探测与防御技术论坛
Near-Earth Asteroid Detection and Defence Technology Forum

报告嘉宾
Keynote Speaker



谢更新 Xie Gengxin

谢更新，教育部深空探测联合研究中心常务副主任，重庆大学航空航天学院院长、空天科学与技术研究院院长、璧山先进技术研究院院长，教授、博士生导师，美国加州大学柏克莱分校博士后，我国探月工程嫦娥四号生物科普载荷总设计师。他带领团队在月球背面培育出人类第一株植物，获六部委联合表彰“探月工程嫦娥四号任务突出贡献者”；担任“神农开物2号”总设计师兼总指挥，在太空全自主孵化太空蝴蝶并长成成虫，验证地球生命韧性与未来太空农场自主授粉可行性。主持国家项目10余项，获省部级以上科技奖励多项，发表论文80余篇，获国家专利10余项，出版专著6部。

Xie Gengxin is the Executive Deputy Director of the Joint Research Center for Deep Space Exploration of the Ministry of Education, Dean of the School of Aeronautics and Astronautics of Chongqing University, Dean of the Institute of Aerospace Science and Technology, Dean of the Bishan Institute of Advanced Technology Research, Professor and Doctoral Supervisor, and a postdoctoral researcher at the University of California, Berkeley. He was Chief Designer of the biological experiment payload on China's Chang'e-4 mission. He led his team to cultivate the first plant ever grown by humankind on the far side of the Moon, and was jointly commended by six ministries and commissions as an Outstanding Contributor to the Chang'e-4 Lunar Exploration Mission. As Chief Designer and Commander-in-Chief of the Shennong Kaiwu-2 mission, he achieved the fully autonomous in-orbit hatching of a butterfly in space. He has led more than 10 national-level projects, received multiple science and technology awards at provincial and ministerial level or above, published more than 80 papers, obtained more than 10 national patents, and authored 6 monographs.



高明宇 Mathieu Grialou

高明宇于1999年毕业于法国国立高等航空航天工程学院（ENSICA，现为ISAE集团的一部分）。在电信领域工作数年后，他加入法国驻日本大使馆，为CNES（法国国家空间研究中心，亦称法国航天局）工作，担任其东京办事处主任。2014年，他加入位于巴黎的CNES国际事务局，负责协调与美国、亚洲和中东地区的合作。2019年，他被派往法属圭亚那库鲁的欧洲航天发射场，负责阿丽亚娜5号、联盟号和织女星火箭发射任务期间的卫星准备工作。自2022年9月起，他在北京担任法国驻华大使馆的CNES代表兼航天事务参赞。他是ISU（国际空间大学）校友。

Mathieu Grialou graduated in 1999 from ENSICA (National Higher School of Aerospace Engineering, now part of ISAE). After a few years working in the field of telecommunications, he joined the Embassy of France in Japan and worked for CNES (French National Space Center, also known as the French Space Agency), as the director of its Tokyo Office. He joined CNES International Affairs Directorate in Paris in 2014, where he coordinated the cooperation with the United States, Asia and the Middle-East. In 2019, he was appointed to the European Spaceport in Kourou, French Guiana, where he was in charge of satellite preparation operations during launch campaigns for Ariane-5, Soyuz and Vega rockets. Since September 2022, he is working in Beijing as CNES Representative and Counsellor for Space Affairs in the Embassy of France. He is an ISU (International Space University) alumnus (SSP16).



陈 琦 Chen Qi

陈琦，博士，研究员。现任深空探测实验室总工程师兼系统研究院院长、中国探月工程嫦娥八号任务副总设计师，兼任国防科技工业科学技术委员会宇航与深空领域专业组成员、中国载人航天数字化专业组成员、空间数据系统咨询委员会专家组成员。他带领团队实现了航天器能源系统从低电压小功率向高电压大功率跨代跃升，推动深空探测领域工程数字化研制转型，助力安徽省打造深空探测科创高地，曾获中国专利银奖、国防科技进步一等奖等省部级以上科技奖励多项，出版专著译著3部，发表学术论文30余篇，获授权专利20余项。

Chen Qi, Ph.D., Research Fellow. He currently serves as Chief Engineer of the Deep Space Exploration Laboratory and Dean of its Systems Research Institute. He is also Deputy Chief Designer of the Chang' e-8 mission under China' s Lunar Exploration Program. In addition, he serves as a member of the Aerospace and Deep Space Specialist Group of the Science and Technology Committee of China' s State Administration of Science, Technology and Industry for National Defense, a member of the Digitalization Specialist Group for China' s Manned Space Program, and an expert group member of the Consultative Committee for Space Data Systems.Under his leadership, his team has achieved a generational leap in spacecraft power systems, transitioning from low-voltage, low-power designs to high-voltage, high-power designs. He has also advanced the digital transformation of engineering development in deep space exploration, contributing to Anhui Province' s efforts to establish a leading innovation hub for deep space exploration. His honors include the China Patent Silver Award and the First Prize of the National Defense Science and Technology Progress Award, along with numerous other science and technology awards at the provincial and ministerial levels or above. He has authored and translated three books, published more than 30 academic papers, and holds over 20 granted patents.



贡萨罗·坦克雷迪 Gonzalo Tancredi

贡萨罗·坦克雷迪，乌拉圭天文学家。1989年毕业于乌拉圭共和国大学天文专业，1993年在瑞典乌普萨拉大学获博士学位，博士论文研究木星族彗星的演化。自2009年起任乌拉圭共和国大学理学院天文系正教授，2014年起任该系主任，并负责该校行星与地球物理科学团队。研究工作涵盖行星科学、天体力学，以及颗粒介质物理在撞击过程中的应用。他是美国NASA DART任务国际团队成员，并参与欧洲空间局Hera任务的有关工作组。为表彰其学术贡献，小行星（5088）Tancredi以他的名字命名。

Gonzalo Tancredi is a Uruguayan astronomer. He graduated in Astronomy from the Universidad de la República (Uruguay) in 1989 and obtained his doctorate at Uppsala University (Sweden) in 1993 with a thesis on the evolution of Jupiter-family comets. He has been a Full Professor at the Department of Astronomy, Faculty of Sciences, Universidad de la República since 2009, and has served as Head of the Department since 2014, where he leads the Planetary and Geophysical Sciences group. His research covers planetary sciences and celestial mechanics, as well as the physics of granular media applied to impact processes. He is a member of the international team of NASA's DART mission and takes part in working groups of ESA's Hera mission. Asteroid (5088) Tancredi is named in his honour.



丁泽刚 Ding Zegang

丁泽刚，博士，教授，博士生导师，中国电子学会会士，北京理工大学雷达技术研究院副院长。长期从事雷达探测与成像技术研究，主持国家重点研发计划、国家自然科学基金重点项目等20余项科研项目。发表SCI期刊论文70余篇，授权发明专利30余项。担任中国电子学会射电天文分会副主任委员、2025年IET国际雷达会议大会主席等。

Ding Zegang is Professor and Doctoral Supervisor at Beijing Institute of Technology, Deputy Director of the Radar Technology Research Institute, and Fellow of the Chinese Institute of Electronics (CIE). His research focuses on radar detection and imaging technology. He has presided over more than 20 research projects, including the National Key Research and Development Program of China and the Key Projects of the National Natural Science Foundation of China. He has authored over 70 SCI-indexed papers and holds more than 30 granted invention patents. He serves as Vice Chair of the Radio Astronomy Branch of the CIE and General Chair of the 2025 IET International Radar Conference, among other academic appointments.



米尔顿·拉米雷斯 Milton Ramírez

米尔顿·拉米雷斯，厄瓜多尔地质工程师，毕业于厄瓜多尔国立理工学院，并在安第斯西蒙·玻利瓦尔大学和国立高等研究院研修灾害风险管理。现任厄瓜多尔军事地理研究所研究、技术发展与航天创新主管，曾在YG基金会、厄瓜多尔航天研究所等机构担任领导职务，主持编制了厄瓜多尔首个《国家空间计划》（现由国防部审阅）。研究领域涵盖撞击坑、陨石和南极古地貌学，长期从事高校教学、科研与科普写作，并在国内外学术活动作报告。主要学术兴趣为地球动力学、行星科学与宇宙成因灾害。

Mr Milton Ramírez is a geological engineer from the Escuela Politécnica Nacional in Quito, Ecuador, with postgraduate studies in disaster risk management at the Universidad Andina Simón Bolívar (UASB) and the Instituto de Altos Estudios Nacionales (IAEN). He currently serves as Head of Research, Technological Development and Space Innovation at the Instituto Geográfico Militar of Ecuador. He has held leadership positions at the YG Foundation, the Instituto Espacial Ecuatoriano and the Instituto Geográfico Militar, where he led the development of Ecuador's first National Space Plan, which is currently under review by the Ministerio de Defensa Nacional. His research encompasses impact craters, meteorites and paleogeomorphology in Antarctica. He has also engaged in university teaching, published scientific and outreach articles, and delivered lectures at national and international events. His academic interests lie in geodynamics, planetary sciences and hazards of cosmic origin.



安德烈·舒加罗夫 Andrey Shugarov

安德烈·舒加罗夫，俄罗斯科学院天文研究所实验天文学部科学家，毕业于莫斯科国立大学，自2006年起任该所仪器科学家，发表论文109篇。2014年起任日间小行星探测空间项目首席研究员，2022—2025年任SODA团队负责人，2025年完成SODA空间系统A阶段。2021年起参与俄罗斯小行星探测项目及小型紫外仪器研制，并同中国国家天文台合作，为中俄国际月球科研站规划中的紫外—光学—红外望远镜开展概念设计。2013—2022年任英国Teledyne e2v公司合作项目科技负责人。

Andrey Shugarov is a scientist at the Institute of Astronomy of the Russian Academy of Sciences (INASAN), Department of Experimental Astronomy. A graduate of Moscow State University, he has worked as an instrument scientist at INASAN since 2006 and has published 109 papers (Russian Science Citation Index). He was scientist of the custom focal unit for a 1 m ground-based wide-field telescope (2014–2018). Since 2014 he has been Principal Investigator of the concept of a space project to detect daytime asteroids (SODA); from 2022 to 2025 he was the responsible officer for the SODA project team at INASAN, and in 2025 Phase A of the SODA space system was completed. Since 2021 he has contributed to other Russian conceptual space projects for asteroid detection (EKOZONT) and to small UV instruments, and has worked together with NAOC to define the conceptual design of a UV-optical-IR astronomical telescope for the future Chinese-Russian International Lunar Research Station. From 2013 to 2022 he was scientific-technical supervisor of the contract with Teledyne e2v (UK) to build custom UV CCDs for WUVS spectrographs, and from 2006 to 2008 scientific-technical supervisor of the Field Camera Unit (FCU) for the WSO-UV project.



顾 征 Gu Zheng

顾征，北京空间飞行器总体设计部研究员，研究生导师，首批航天科技集团青年拔尖人才，主要从事深空探测、小行星防御总体设计工作。近年来，发表学术论文30余篇，获得国防科技进步一等奖、甘肃省科技进步一等奖、北京市科技进步三等奖等多项省部级奖励，获得国家发明/国防专利授权20余项。

Gu Zheng is a Research Fellow and postgraduate supervisor at the Beijing Institute of Spacecraft System Engineering (BISSE). He is among the first-batch Young Top-notch Talents of China Aerospace Science and Technology Corporation (CASC), whose main research focuses on deep-space exploration and system-level design for asteroid defence. He has published over 30 academic papers, and received multiple provincial-ministerial-level awards including the First-class Prize of the National Defence Science and Technology Progress Award, the First-class Prize of the Gansu Provincial Science and Technology Progress Award, and the Third-class Prize of the Beijing Science and Technology Progress Award. He has been granted over 20 invention patents.



凯瑟琳·维埃拉 Katherine Vieira

凯瑟琳·维埃拉，天文学家，2010年获美国耶鲁大学天文学博士学位，专长天体测量学及其在天文学多个方向的应用，研究范围从银河系运动学与结构，到人造卫星与火流星的追踪观测。她曾在委内瑞拉梅里达的安第斯大学天文研究中心任研究员，并在该校基础物理研究生项目任访问教授，历时十年。自2020年起，她在智利阿塔卡马大学天文与行星科学研究所担任研究员。目前她主持 FRIPON Andino 网络，这是一项致力于火流星观测与追踪、新鲜陨石回收的区域性科研与公民科学计划。

Rosa Katherine Vieira Villarreal holds a Ph.D. in Astronomy from Yale University (2010), specializing in astrometry and its applications to a broad range of astronomical topics, from Galactic kinematics and structure to the tracking of artificial satellites and bolides. She spent 10 years as a researcher at the Astronomy Research Center and as a visiting professor in the Graduate Program in Fundamental Physics at the University of the Andes in Mérida, Venezuela. Since 2020, she has been an academic researcher at the Institute of Astronomy and Planetary Sciences at the University of Atacama, Chile. She currently leads the FRIPON Andino network, a regional scientific and citizen-science initiative dedicated to observing and tracking bolides and recovering fresh meteorites.



宋叶志 Song Yezhi

宋叶志，中国科学院上海天文台研究员，博士生导师。上海交通大学航空航天学院兼职博导。《兵器装备工程学报》编委、《遥测遥控》青年编委。发表学术论文50余篇，编写教材3本。主持国家重点研发计划等三十余项研究课题。

Song Yezhi, Professor and Doctoral Supervisor at Shanghai Astronomical Observatory, Chinese Academy of Sciences, is an Adjunct Doctoral Supervisor at the School of Aeronautics and Astronautics, Shanghai Jiao Tong University. He is on the Editorial Board of Journal of Ordnance Equipment Engineering and the Youth Editorial Board of Journal of Telemetry, Tracking and Command. He has published over 50 academic papers, authored 3 textbooks, and led more than 30 research projects including the National Key R&D Program of China.



甘图格斯·策格米德 Gantugs Tsegmid

甘图格斯·策格米德，现任亚太空间合作组织（APSCO）战略规划与项目管理司副总干事，负责统筹该组织长期战略愿景并监督其各项活动实施，工作核心为推动亚太区域在空间科学、空间技术与空间应用领域的合作，重点关注能力建设、法规制定与区域空间治理。2023年加入APSCO前，他曾任蒙古国数字发展、创新与通信部空间通信司司长，主导该国卫星通信及空间相关基础设施的国家政策制定，并作为蒙古国代表出席多届国际电信联盟无线电通信部门（ITU-R）大会，参与频率协调、轨道位置分配与无线电频谱管理等多边谈判。他拥有美国莫瑞州立大学电信系统管理专业理学硕士学位及蒙古科技大学通信工程专业学士学位。

Mr. Gantugs Tsegmid serves as Deputy Director General of the Department of Strategic Planning and Program Management at the Asia-Pacific Space Cooperation Organization (APSCO), steering the Organization's long-term strategic vision and overseeing the implementation of its activities, with a focus on advancing regional cooperation in space science, technology and applications, capacity building, regulatory development and space governance. Prior to joining APSCO in 2023, he served as Director of the Space Communication Division at the Ministry of Digital Development, Innovation and Communication of Mongolia, leading national policy development for satellite communications and space-related infrastructure, and acted as a national delegate to multiple ITU-R conferences on frequency coordination, orbital slot allocation and radio spectrum management. He holds a Master of Science in Telecommunication Systems Management from Murray State University, USA, and a Bachelor's degree in Communication Engineering from the Mongolian University of Science and Technology.



刘芹芹 Liu Qinqin

刘芹芹，副研究员，硕士生导师，中国科学院国家空间科学中心九章C类人才计划，长期从事地球关键圈层耦合及其灾害环境效应、自然灾害监测预警与小行星撞击地球灾害链效应研究。以第一作者和通讯作者发表论文近20篇、以第一作者出版译著1本，承担国防科工局“十四五”空间碎片专项、国家自然基金青年科学基金、国家重点研发计划专项等多项项目。国内首次系统提出了行星撞击灾害链效应模式并开展火山类比研究以及小行星撞击成坑及溅射粉尘扩散过程模拟研究。

Liu Qinqin is an associate research professor and master's supervisor at the National Space Science Center, Chinese Academy of Sciences, and a recipient of the Center's Jiuzhang Class-C Talent Program. Her long-term research covers the coupling of Earth's key spheres and its disaster-environmental effects, natural disaster monitoring and early warning, and the disaster-chain effects of asteroid impacts on Earth. As first author or corresponding author she has published nearly 20 papers and, as first author, one translated monograph. She has undertaken multiple projects, including the Space Debris Special Project of the "14th Five-Year Plan" of the State Administration of Science, Technology and Industry for National Defence, the Young Scientists Fund of the National Natural Science Foundation of China, and special projects of the National Key Research and Development Program. She was the first in China to systematically propose a model of the disaster-chain effects of planetary impacts and to carry out analogue studies of volcanic eruptions, as well as simulation studies of impact cratering by asteroids and the diffusion of ejected dust.



阿萨兰·穆罕默德 Arsalan Muhammad

阿萨兰·穆罕默德，巴基斯坦籍，北京航空航天大学博士研究生，已完成多项卫星系统与空间技术应用相关项目。其当前研究聚焦深空探测、地月空间科学、近地小行星及先进技术，致力于运用人工智能与深度学习为未来月球及深空任务开展自主轨道与轨迹设计优化。他曾获全额中国政府奖学金，在北京航空航天大学先后攻读空间技术应用专业硕士与博士学位，其间在卫星通信、制导导航与控制（GNC）系统及微小卫星技术领域积累了研究能力，已发表多篇研究论文。

Mr. Arsalan Muhammad is a doctoral scholar at Beihang University, China, having completed several projects related to satellite systems and space technology applications. His current research focuses on deep space exploration, cislunar science, near-Earth asteroids and advanced technologies, working on autonomous orbit and trajectory design and optimization for future lunar and deep-space missions using artificial intelligence and deep learning. He pursued both his Master's degree in space technology applications and his doctoral studies at Beihang University on fully funded Chinese Government Scholarships, developing research skills in satellite communications; guidance, navigation and control systems; and microsatellite technology. He has published several research papers.



玛莉雅·巫力阳诺娃 Maria Ulyanova

玛莉雅·巫力阳诺娃，俄罗斯汉学家、分析师，语言科学博士，现任俄罗斯科学院东方研究所研究员、该所航天工作组学术秘书，并任俄联中航天系统（文昌）有限公司与俄联中新能源科技发展（海南）有限公司创始人、董事会董事。发表学术出版物与研究报告百余篇。自2010年起在俄罗斯、中国、奥地利等国学术会议与论坛发表报告；2024年在文昌国际航天城发起成立“俄联中航天系统有限公司”并推出“高科技基础设施航天剧院集群”项目；2025年受邀出席联合国外层空间事务办公室第62届科学技术小组委员会会议（维也纳）并作报告。

Maria Ulyanova is a Russian sinologist and analyst holding a Ph.D. in Philology. She is a Research Fellow at the Institute of Oriental Studies of the Russian Academy of Sciences and Academic Secretary of its Space Working Group, and a Founder and Member of the Board of Directors of Russian-Chinese Space Systems (Wenchang) Co., Ltd. and of Russian-Chinese New Energy Technology Development (Hainan) Co., Ltd. She is the author of more than 100 scientific publications. Since 2010 she has spoken at conferences and forums in Russia, China and Austria. In 2024 she initiated the creation of Russian-Chinese Space Systems in the International Space City of Wenchang and the Outer Space Theatre Complex project. In 2025 she presented a report at the 62nd session of the Scientific and Technical Subcommittee of the United Nations Office for Outer Space Affairs in Vienna.



04

问题与建议
Questions and Suggestions

1）

你认为近地小行星防御国际合作存在的问题是什么？
解决这些问题的主要途径是什么？

What do you consider to be the main problems in international cooperation on near-Earth asteroid defence? What are the principal approaches to solving these problems?

2）

未来国际深空探测的机遇与挑战是什么？
中国在深空探测活动中应该承担的角色是什么？

What are the opportunities and challenges of future international deep-space exploration?
What role should China play in deep-space exploration activities?

3）

你关注的问题与建议。

What issues are you concerned about, and what are your suggestions?