The 14th PIIC Beijing Seminar on International Security:

Strategic Stability and Cooperation

Organized by:

Program for Science and National Security Studies (PSNSS)

Co-Sponsored by:

Institute of Applied Physics and Computational Mathematics (IAPCM), China International School on Disarmament and Research on Conflicts (ISODARCO), Italy China Institutes of Contemporary International Relations (CICIR), China Chinese People's Association for Peace and Disarmament (CPAPD), China Nuclear Threat Initiative (NTI), USA



PIIC Agenda

October 19 (Sunday)

Registration: 9:00-12:00 and 14:00-18:00

Venue: Lobby of Zhejiang Hotel

18:15-20:00 Reception Banquet: Hosted by Mr. Li Wuwei

(Former vice chairman of the CPPCC)

Venue: Lilac Café

October 20 (Monday)

9:00-9:50 Opening Session (Moderator: Li Hua)

Venue: Guiyu Hall

Invited Speech: Li Yang (Arms Control Department,

Ministry of Foreign Affairs, CHINA)

9:50-10:15 Tea Break

10:15-12:15 Plenary Session 1: Nuclear Energy and Nuclear Security

(Moderator: Yang Fujia)

Venue: Guiyu Hall

Du Xiangwan

The Future of Nuclear Energy in China
Ye Qizhen

Present Situation and Prospect of the

Development of Nuclear Power in PRC

Tatsujiro Suzuki Nuclear Fuel Cycle Options for Japan after the

Fukushima Nuclear Accident

Pan Ziqiang Nuclear Security and Safety in China

12:15-14:00 Lunch Venue: Lilac Café

14:00-15:45 Parallel Session (A1): Nuclear Security and

Safety (Moderator: Deborah Rosenblum)

Venue: Guiyu Hall

Rajaraman Ramamurti Lessons from the Three Nuclear Summits
Kang Jungmin Nuclear Power Plant Safety and Security
Chaim Braun Cooperative Nuclear Energy Safety

Regime in Northeast Asia

Fan Jishe China's Nuclear Security Concept:

A Balanced and Better Approach

15:45-16:00 Tea Break

16:00-18:00 Parallel Session (A2): Nuclear Power

Development and Nonproliferation

(Moderator: Zhu Xuhui)

Venue: Guiyu Hall

Henry Sokolski Serious Rules for Nuclear Power

without Proliferation

Kelsey Hartigan New Approaches to the Nuclear Fuel Cycle

Mirco Elena Security Implications of Changing

Energy Strategies

Masafumi Matsunaga Reprocessing in Japan and Japan's

Plutonium Stock

14:00-15:45 Parallel Session (B1): Nuclear Forensic and

Technological Cooperation (Moderator: Joseph

Pilat)

Venue: Lianhua Hall

Sue Clark Building Confidence in Technical Nuclear

Forensics Methods: Experiences Analyzing Standard Reference Materials for Actinide Elemental and Isotopic Composition

Zhao Yonggang Nuclear Forensic Development in China
Nathalie Wall Aspects of Technetium Chemistry in the Environment

Larry Brandt China-U.S. Technical Cooperation on Nuclear Risk Reduction:

Past Accomplishments and Future Opportunities

Jason Reinhardt The Role of Systems and Risk Analysis in Nuclear Matters?

15:45-16:00 Tea Break

16:00-18:00 Parallel Session (B2): Disarmament and Verification

(Moderator: Chen Kai)

Venue: Lianhua Hall

Alexander Glaser New Verification Challenges and Opportunities for Nuclear

Arms Control and Disarmament

Yan Jie The Challenge of Nuclear Warhead Verification For Arms

Control and Disarmament: A Review of Attribute and

Template Systems

Zia Mian Next Steps in Increasing Transparency of Nuclear Warhead

and Fissile Material Stocks for Nuclear Disarmament

Zhu Jianyu The Application of Truncated Count Imaging in Nuclear

Reduction Verification

18:00-20:00 **Dinner** Venue: Lilac Café

October 21 (Tuesday)

9:00-10:30 Plenary Session 2: Enhancement of

International Nuclear Nonproliferation Regime

(Moderator: Qian Lihua)

Venue: Guiyu Hall

Sig Hecker North Korea Nuclear Program:

A 10-Year Retrospective

Li Changhe

Frank von Hippel

Paolo Cotta Ramusino

Nuclear Problems on Korean Peninsula

Iran and Multinational Enrichment

Problems of Nuclear Proliferation and

Disarmament in the Middle East

10:30-10:45 Tea Break

10:45-12:30 Plenary Session 3: International Security

Cooperation and Reducing the Risks of Nuclear

Terrorism (Moderator: Carlo Schaerf)

Venue: Guiyu Hall

Victor Gilinsky Rethinking Nuclear Power Risks
Matthew Cottee The Nuclear Security Regime:

Past. Present & Future

Joseph Pilat Cascading Proliferation Fears and the

Development of the Nonproliferation Regime

Zhang Hui Next Steps for Strengthening China's

Nuclear Security

Guo Xiaobing Nuclear Security in China:

Perceptions and Practices

12:30-14:00 Lunch
Venue: Lilac Café

14:00-16:00 Plenary Session 4: Verification Technologies for

Arms Control (Moderator: Page Stoutland)

Venue: Guiyu Hall

Li Genxin Political and Technologic Challenge in CTBTO

Grenard Patrick Sustaining the Technology Base of the

CTBT Verification Regime

Kelsey Hartigan Monitoring and Verification Technologies

Benjamin Rusek Monitoring and Verification for Confidence Building

16:00-16:30 Tea Break

16:30-18:00 Parallel Session (A3): Global Strategic Stability

(Moderator: Alessandro Pascolini)

Venue: Guiyu Hall

David Santoro Extended Deterrence in Northeast Asia

Caroline Milne Perceptions of Mutual Vulnerability between

Advanced Nuclear States

Xia Liping Strategic Stability between China and the US from

the Perspectives of the New Model of Major

Powers Relations

16:30-18:00 Parallel Session (B3): Conventional Strategic

Weapons and Stability (Moderator: Hu Xiaodi)

Venue: Lianhua Hall

Lora Saalman Impact of Prompt Global Strike Technologies on

Sino-U.S. Strategic Stability

James Mark Acton Conventional Prompt Global Strike:

Progress, Prospects and Implications for

Strategic Stability

Zhao Tong Addressing the Challenge of Conventional Strategic

Weapons on Strategic Balance and Nuclear

Stability

18:00-20:00 Dinner

Venue: Lilac Café

October 22 (Wednesday)

9:00-10:45 Plenary Session 5: Strategic Stability in the New

International Security Situation (Moderator: Cui Liru)

Venue: Guiyu Hall

Lewis Dunn Enhancing U.S.-China Mutual Strategic Predictability

Sun Xiangli Arms Control and Strategic Stability

Theodore Postol Why the US Missile Defense Will Be Unreliable in Combat

10: 45-11: 00 Tea Break

11: 00-12:00 Closing Session (Moderator: Li Hua)

Closing Remarks by:

Carlo Schaerf (ISODARCO)

Deborah Rosenblum (NTI)

Zhu Rui (CPAPD) Yang Mingjie (CICIR)

12:00-14:00 Lunch Venue: Lilac Café

14:00-18:00 Meeting Activity: *Visit Qinshan Nuclear Station*

(14:00 Depart from Lobby Gate by Buses)

18:00-20:00 Dinner
Venue: Lilac Café

Note:

Speakers are allotted 15 minutes each to address the main issues of their topics.

Participants

James Mark ACTON

Carnegie Endowment for International Peace, UK jacton@ceip.org

Emma BELCHER

John D. and Catherine T.

MacArthur Foundation, AUSTRALIA

ebelcher@macfound.org

Larry BRANDT

Center for International Security and Cooperation, Stanford University, USA Idbrandt@stanford.edu

Chen Jingmei

Institute of Applied Physics and Computational Mathematics, CHINA

Chen Rui

China Academy of Engineering Physics, CHINA

Sue CLARK

Washington State University, USA s clark@wsu.edu

Kazim BATMAZOğLU

Leeds Metropolitan University / Leeds / UK, TURKEY kazim.batmazoglu@gmail.com

George BOGDEN

University of Oxford, USA george.bogden@gmail.com

Chaim BRAUN

Stanford University, USA cbraun@stanford.edu

Chen Kai

China Arms Control and Disarmament, CHINA chen kai@mfa.gov.cn

Chen Xuzhou

China Arms Control and Disarmament, CHINA cxz3422@sina.com.cn

Paolo Cotta-Ramusino

Pugwash, ITALY cotta@mi.infn.it

Matthew COTTEE

International Institude of Strategic Studies (IISS), UK cottee@iiss.org

Myagmar DOVCHIN

The Mongolian Institute for Geopolitical Studies, MONGOLIA myagmarf@yahoo.com

Du Sheng

Ministry of Foreign Affair, CHINA

Du Yanjun

China Institutes of Contemporary International Relations, CHINA du_yanjun@cicir.ac.cn

Lewis DUNN

Science Applications International Corporation, USA laddunn@msn.com or lewis.a.dunn@saic.com

Fan Jishe

Institute of American Studies, Chinese Academy of Social Sciences, CHINA fanjs@cass.org.cn

Cui Liru

China Institutes of Contemporary International Relations, CHINA clr@cicir.ac.cn

Du Jiexin

China Academy of Engineering Physics, CHINA

Du Xiangwan

China Academy of Engineering Physics, CHINA

Duan Zhanyuan

China Arms Control and Disarmament, CHINA dzy_2002@xinhuanet.com

Mirco ELENA

Provincia Autonoma di Trento, ITALY elena@science.unitn.it

Feng Wen

China Academy of Engineering Physics, CHINA

John FEI

MacArthur Foundation, USA jfei@macfound.org

Geng Qingyun

Chinese Nuclear Society, CHINA 13801220296@139.com

Alexander GLASER

Princeton University, GERMANY aglaser@princeton.edu

Gu Guoliang

Institute of American Studies, Gugl@cass.org.cn

Hang Yihong

China Academy of Engineering Physics, CHINA

Kelsey HARTIGAN

Nuclear Threat Initiative, USA Hartigan@nti.org

Fei Xiaojun

China International Institute for strategic Society, CHINA fxj0174@sina.com

Victor GILINSKY

Consultant, USA victor@gilinsky.com

Patrick GRENARD

CTBTO, Viena, FRANCE patrick.grenard@ctbto.org

Guo Xiaobing

China Institutes of Chinese Academy of Social Sciences, CHINA Contemporary International Relations, CHINA guoxiaobing@cicir.ac.cn

Hao Fanhua

China Academy of Engineering Physics, CHINA 1473465443@qq.com

Siegfried HECKER

Stanford University, USA shecker@stanford.edu (Cc: iuria@stanford.edu)

Hou Hongyu

Chinese People's Association for Peace and Disarmament, CHINA cpapd@cpapd.org.cn

Hu Xiaodi

Ministry of Foreign Affairs, CHINA 1617633461@qq.com

Jiang Kang

Centre for Science and Security Studies, Department of War Studies, King's College London, CHINA kang.jiang@kcl.ac.uk

Jin Xikang

Northwest Institute of Nuclear Technology, CHINA jxk8847@126.com

Kang Chunmei

China Academy of Engineering Physics, CHINA chm_kang@caep.cn

Li Changhe

China Arms Control and Disarmament, CHINA changheli x@sina.com

Li Hua

Institute of Applied Physics and Computational Mathematics, CHINA lihuaw@iapcm.ac.cn

Hu Side

China Academy of Engineering Physics, CHINA hsd@iapcm.ac.cn

April HUMBLE

Climate Service Center, BRITISH (Scottish) april.humble1@gmail.com

Jiang Yimin

China Academy of Engineering Physics, CHINA yimin_jiang@yeah.net

Jungmin KANG

Korea Advanced Institute of Science and Technology, KOREA jungminkang64@gmail.com

Gregory KULACKI

Union of Concerned Scientists, USA gkulacki@ucsusa.org

Li Genxin

CTBTO, UN, CHINA ligenxin@hotmail.com

Li Jia

China Academy of Engineering Physics, CHINA lijia@caep.cn

Li Peng

China Defence Science and Technology Information Center, CHINA

Li Wuwei

Chinese People's Association for Peace and Disarmament, CHINA

Li Yang

Ministry of Foreign Affairs, CHINA

Liao Ke

China Academy of Engineering Physics, CHINA

Liu Bo

China Institutes of Contemporary International Relations, CHINA liubo@cicir.ac.cn

Liu Gongliang

Institute of Applied Physics and Computational Mathematics, CHINA

Liu Xiaoming

China Arms Control and Disarmament, CHINA liuxiaoming@cacda.gov.cn

Lu Yin

National Defense University, CHINA ndudeer@163.com

Luo Fei

China Academy of Engineering Physics, CHINA feiluo@163.com

Luo Wenhua

China Academy of Engineering Physics, CHINA luowenhua@caep.cn

Ma Chunyan

China Defence Science and Technology Information Center, CHINA

Masafumi MATSUNAGA

IPFM(Japan Member), JAPAN takubomasa@ybb.ne.jp

Miao Yong

Chinese People's Association for Peace and Disarmament, CHINA

Zia MIAN

Program on Science & Global Security, Princeton University, UK zia@princeton.edu

Caroline MILNE

Woodrow Wilson School of Public and International Affairs, PrincetonUniversity, USA csreilly@princeton.edu

Ouyang Liping

China Institutes of Contemporary International Relations, CHINA

Pan Ziqiang

China Nuclear Industry Corporation, CHINA

Alessandro PASCOLINI

Department of physics and astronomy, ITALY pascolini@pd.infn.it

Joseph PILAT

Los Alamos National Laboratory, USA jpilat@lanl.gov

Theodore POSTOL

Massachusetts Institute of Technology, USA postol@mit.edu

Qian Lihua

China Arms Control and Disarmament, CHINA

Qiu Yong

China Academy of Engineering Physics, CHINA qiuy@caep.cn

Ramamurti RAJARAMAN

Jawaharlal Nehru University, INDIA prof_rajaraman@yahoo.com, doug1968@hotmail.com

Jason REINHARDT

Center for International Security and Cooperation (CISAC), Stanford University, USA reinhardt@stanford.edu

Deborah ROSENBLUM

Nuclear Threat Initiative, USA

Benjamin RUSEK

Committee on International Security and Arms Control (CISAC), U.S. National Academy of Sciences, USA brusek@nas.edu

Lora SAALMAN

Asia-Pacific Center for Security Studies, USA lorasaalman@gmail.com

Carlo SCHAERF

University of Rome "Tor Vergata", Isodarco, ITALY schaerf@roma2.infn.it

Najmuddin SHAIKH

Former Foreign Secretary. PAKISTAN, PAKISTAN shaikh28@gmail.com

Shen Lixin

Chinese Nuclear Society, CHINA

Shi Lelei

China Instituty of Nuclear Informatian & Economics, CHINA eagle_shi@hotmail.com

Shi Jianbin

China Academy of Engineering Physics, CHINA shi_jb@mail.ustc.edu.cn

David SANTORO

Pacific Forum CSIS, FRANCE david@pacforum.org

Oleg SEROV

Embassy of the Russian Federation, RUSSIA olegyserov@mail.ru

Sha Zhiping

China Instituty of Nuclear Informatian & Economics, CHINA zhpsha@163.com

Shen Yanping

China Academy of Engineering Physics, CHINA psnss@iapcm.ac.cn

Shi Shaozhu

Northwest Institute of Nuclear Technology, CHINA sszchina@163.com

Henry SOKOLSKI

Nonproliferation Policy Education Center (NPEC), USA HENRY@NPOLICY.ORG

Song Xiangyu

China Instituty of Nuclear Informatian & Economics, CHINA xiangyu song@163.com

Su Jiahang

China Academy of Engineering Physics, CHINA sujh06@163.com

Mark B.M. SUH

Korean Pugwash Group, KOREA marksuh@gmx.net

Sun Xiangli

China Academy of Engineering Physics, CHINA sunxiangli@iapcm.ac.cn

Tian Dongfeng

China Academy of Engineering Physics, CHINA dftian@iapcm.ac.cn

Frank VON HIPPEL

Princeton University, USA fvhippel@princeton.edu

Page STOUTLAND

Nuclear Threat Initiative, USA Stoutland@nti.org

Shuai maobing

China Academy of Engineering Physics, CHINA shuaimaobing@caep.cn

Sun Haiyang

Second artillery command college, CHINA sunsea666666@163.com

Tatsujiro SUZUKI

Research Center for Nuclear Weapons Abolition(RECNA), Nagasaki University, JAPAN suzukitatsu@nagasaki-u.ac.jp

Tian Jingmei

China Academy of Engineering Physics, CHINA tian_jingmei@iapcm.ac.cn

Nathalie WALL

Washington State University, USA nawall@wsu.edu

Wang Deli

Institute of Applied Physics and Computational Mathematics, CHINA

Wei Fayuan

China Academy of Engineering Physics, CHINA weify@caep.cn

Wu Jun

Institute of Applied Physics and Computational Mathematics, CHINA wujun@iapcm.ac.cn

Xia Liping

Tongji University, CHINA xialp@hotmail.com

Xiang Qingpei

China Academy of Engineering Physics, CHINA xiangpingpei@163.com

Xiang Yongchun

China Academy of Engineering Physics, CHINA 18990109331@126.com

Wang Zheng

China Defence Science and Technology Information Center, CHINA kookwangzgeng@163.com

Wei Mengfu

China Academy of Engineering Physics, CHINA weimengfu@caep.cn

Wu xingchun

China Academy of Engineering Physics, CHINA

Xia Ruijia

China Arms Control and Disarmament, CHINA

Xiang Xun

China Academy of Engineering Physics, CHINA

Xie Dong

Institute of Applied Physics and Computational Mathematics, CHINA xie dong@iapcm.ac.cn

Xie Wenxiong

China Academy of Engineering Physics, CHINA xiewenx86@gmail.com

Xu Weidi

National Defense University, CHINA xu weid1225i@126.com

Xu Xuefeng

China Academy of Engineering Physics, CHINA reandy123@163.com

Yang Fujia

Fudan University, CHINA fjyang23@yahoo.com

Ye Qizhen

China Nuclear Industry Corporation, CHINA

Ying Yangjun

Institute of Applied Physics and Computational Mathematics , CHINA

Xu Rong

China Arms Control and Disarmament, CHINA xurong@cacda.org.cn

Xu Wenli

China Academy of Engineering Physics, CHINA

Yan Jie

Princeton University, CHINA jieyan@princeton.edu

Yang Mingjie

China Institutes of Contemporary International Relations, CHINA Yangmingjie@263.net

Ye Yuguan

China Academy of Engineering Physics, CHINA yeyuguan@139.com

Yu Xiaoling

China Defence Science and Technology Information Center, CHINA ycancan@sina.com

Yuan Enlun

China Academy of Engineering Physics, CHINA 13501149381@163.com

Zhang Chuanfei

China Academy of Engineering Physics, CHINA

Zhang Hong

Institute of Applied Physics and Computational Mathematics, CHINA

Zhang Meng

China Defence Science and Technology Information Center, CHINA davidmikemiui@gmail.com

Zhang Songbai

Institute of Applied Physics and Computational Mathematics, CHINA sb_zhang@iapcm.ac.cn

Zhao Tong

Carnegie Endowment for International Peace, CHINA zhaot2005@gmail.com

Yue Jiangfeng

China Defence Science and Technology Information Center, CHINA gfkjxx@sohu.com

ZHANG Hui

Harvard University, USA hui_zhang@harvard.edu

Zhang Lixing

Northwest Institute of Nuclear Technology, CHINA zhanglixing@aliyun.com

Zhang Ping

Northwest Institute of Nuclear Technology, CHINA

Zhang Yu

China Foundation for International Strategic Studies, CHINA Zhangyu@cfiss.org.cn

Zhao Wuwen

China Academy of Engineering Physics, CHINA zhao_wuwen@sina.com

Zhao Yonggang

China Institute of Atomic Energy, CHINA zhaoyg@ciae.ac.cn

Zhou Lin

China Academy of Engineering Physics, CHINA 411zhoul@caep.cn

Zhu Ming

China Academy of Engineering Physics, CHINA

Zhu Xuhui

China Nuclear Industry Corporation, CHINA zhuxh2007@sina.com

Zheng Yan

China Academy of Engineering Physics, CHINA zysynthia@sina.com

Zhu Jianyu

China Academy of Engineering Physics, CHINA zhujyu@126.com

Zhu Rui

Chinese People's Association for Peace and Disarmament, CHINA cpapd@cpapd.org.cn

Zou Yunhua

China Defence Science and Technology Information Center, CHINA yhzou@yahoo.com

About the Sponsors

Institute of Applied Physics and Computational Mathematics

The Beijing Institute of Applied Physics and Computational Mathematics was founded in 1958. Its areas of study include theoretical physics, nuclear and particle physics, plasma physics, laser physics, fluid dynamics, applied mathematics, computational mathematics, computer applications, and arms control science and technology.

International School of Disarmament and Research on Conflicts

The International School of Disarmament and Research on Conflicts (ISODARCO) is a non-government organization founded in 1966 by two Italian physics professors, Edoardo Amaldi and Carlo Schaerf, which offers a unique international forum on security problems throughout the world. ISODARCO's purpose is to bring together those with a great variety of experiences and approaches relating to security problems with discussions focused on commissioned expert papers.

China Institutes of Contemporary International Relations

China Institutes of Contemporary International Relations (CICIR) is a comprehensive research institution for international studies. In compliance with the directive of the State Council to set up a series of new institutions for international studies, the predecessor organization, China Institute of Contemporary International Relations, announced its official establishment in 1980. In 2003, the Institute was renamed and upgraded to China Institutes of Contemporary International Relations. CICIR consists of 11 institutes, two research divisions under direct supervision of CICIR leaders, eight research centers and several administrative departments. CICIR has now a staff of 380, including researchers, administrative and logistic personnel, among whom 150 are research professors or associate research professors.

Chinese People's Association for Peace and Disarmament

Founded in June 1985, the Chinese People's Association for Peace and Disarmament (CPAPD) is the largest Chinese non-governmental peace association with a total of 24 influential member organizations. The objectives of the CPAPD are to promote mutual understanding, friendship and cooperation between the peoples of China and the rest of the world in joint efforts to maintain world peace, oppose an arms race and war, achieve arms control and disarmament, strive for complete prohibition and thorough destruction of nuclear weapons and other weapons of mass destruction, protect ecological environment, and promote social harmony and sustainable development.

Nuclear Threat Initiative

The Nuclear Threat Initiative (NTI) is a nonprofit, nonpartisan organization with a mission to strengthen global security by reducing the risk of use and preventing the spread of nuclear, biological and chemical weapons and to work to build the trust, transparency and security that are preconditions to the ultimate fulfillment of the Non-Proliferation Treaty's goals and ambitions. Recognizing that governments have most of the resources and authority in the large-scale work of threat reduction, NTI emphasizes leverage—using its voice to raise awareness and advocate solutions; undertaking direct action projects that demonstrate new ways to reduce threats; and foster new thinking about these problems. Founders Ted Turner and former U.S. Senator Sam Nunn serve as co-chairmen of the board of directors, which includes members from China, India, Japan, Jordan, Pakistan, Russia, Sweden, the United Kingdom and the United States.