

2026 10th International Conference on RELIABILITY ENGINEERING

Hangzhou, China July 19-21, 2026

<http://icre.org/>

Special Session 10

Reliability, Safety, and Uncertainty Management in Aviation and New Energy Systems

Goal >>>>

Aviation and new energy systems are both typical safety-critical complex systems, whose reliable and safe operations are extremely important for public welfare and national security. There are profound scientific challenges in terms of system complexity, components interdependency, dynamic behaviors, and environmental disturbances. Under this circumstances, the uncertainty management and elimination has also become an important issue to be addressed.

This special session aims to create a dedicated platform for in-depth dialogue and communications of advanced ideas for the reliability, safety, and uncertainty management for these two critical infrastructures. It encourages the proposal of advanced concepts, models, and tools in risk assessment, safety assurance, resilience design, and uncertainty quantification, fostering the development of more universal methodologies.

Topics >>>>

Topics of interest include, but are not limited to:

- Air transport system reliability and safety
- Airworthiness and safety certification
- Risk assessment and protection control of new energy systems
- Reliability modeling of new energy equipment
- AI-enabled reliability and safety for complex systems
- Uncertainty quantification and management techniques
-

Chairs >>>>



Qingyuan Zhang, Beihang University, China



Tianpei Zu, Beihang University, China



Yi Jin, Beihang University, China

Publication >>>>

We provide a good opportunity by presenting your updated research knowledge and also by publishing it in the conference proceedings. submitted paper will be peer reviewed by conference committees, and accepted papers will be included into conference proceedings which will be indexed by SCOPUS and Ei compendex.

Submission >>>>

1. Full paper (presentation and publication)
 - The paper must be written in English.
 - All submissions will undergo a peer-review process by the conference committee.
 - The paper should be at least FIVE pages including all figures, tables, and references.
 - The paper should be submitted as a PDF document in .pdf format.
 - submitted paper must be unpublished.
 - Accepted papers will be invited for oral presentation or poster presentation and will be included in the conference proceedings.
2. Abstract (presentation only)
 - Abstracts will be considered for presentation (oral/poster) only without publication.
 - The abstract must be written in English.
 - Abstracts should be no more than 300 words and clearly outline the title, purpose, methods, and outcomes of the research or practice being described.
 - All submissions will undergo a peer-review process by the conference committee.

* Welcome to submit the paper or abstract by Electronic submission system: <https://www.zmeeting.org/submission/icre2026>
More details about submission, please visit at: <https://www.icre.org/sub.html>

Conference Program >>>>

July 19, 2026 | CONFERENCE + SHORT COURSE
July 20, 2026 | TECHNICAL EXCELLENCE & TRIBUTE
July 21, 2026 | INNOVATION & FUTURE OUTLOOK
July 12-25, 2026 | Young Scholar Symposium + 2026 Beihang International Summer School

Conference Venue >>>>

Conference Venue:
Hangzhou International Innovation Institute of Beihang University
Address:
No. 166, Shuanghongqiao Street, Pingyao Town, Yuhang District, Hangzhou City

Hangzhou, China

Hangzhou, a renowned Jiangnan city blending millennia of heritage and poetic scenery, boasts three world cultural heritage sites. West Lake ripples with romance; Liangzhu Ruins hold ancient wisdom; the Grand Canal carries folk vibes. Timeless Song Dynasty elegance meets trendy fun, and delicious local cuisine delights the taste buds. A perfect mix of classic and modern, it awaits visitors from all over the world.

Important Dates >>>>

Submission Deadline: April 10, 2026
Notification Deadline: May 5, 2026
Camera-ready Date: May 20, 2026

Sponsors



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Contact

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Email: icre_conf@outlook.com
web: <http://www.icre.org>

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特别专题 10

航空与新能源系统中的可靠性、安全性及不确定性管理

专题目标 >>>>

航空系统和新能源系统都是典型的安全攸关型复杂系统，其可靠和安全运行对于维护公共利益和国家安全至关重要。在航空与新能源系统的可靠性和安全性领域，系统复杂性、部件相互依赖性、动态行为和环境干扰仍然引发了大量科学挑战。在这一情况下，如何开展此类复杂系统的不确定性管理和消减也成为亟待解决的重要问题。

本专题旨在搭建一个面向航空系统和新能源系统可靠性、安全性和不确定性管理先进技术方法的交流平台。我们希望能够共同探讨在航空系统和新能源系统风险评估、安全保证、韧性设计、不确定性量化与管理等方面的先进理念、模型和工具，以促进复杂系统可靠性、安全性方法论的发展。

专题主题 >>>>

征稿主题包括但不限于：

- 航空运输系统的可靠性与安全性
- 适航性与安全认证
- 新能源系统的风险评估与防护控制
- 新能源装备的可靠性建模
- 基于AI的复杂系统可靠性和安全性
- 不确定性量化与管理技术
- ...

专题主席 >>>>



张清源, 北京航空航天大学, 中国



祖天培, 北京航空航天大学, 中国



金毅, 北京航空航天大学, 中国

会议出版 >>>>

会议收录的文章将出版在会议论文集集中出版，并提交EI Compendex, Scopus等其他检索机构审核检索。

投稿方式 >>>>

- 1). 上传文章到电子投稿系统: <https://www.zmeeting.org/submission/icre2026>
- 2). 或发送文章至会议邮箱: icre_conf@outlook.com

提示:

1. 全文投稿 (含报告与出版)

- 稿件须以英文撰写。
- 所有投稿均由会议委员会进行同行评审。
- 稿件篇幅不少于 5 页，包含所有图表及参考文献。
- 稿件须以 PDF 格式提交。
- 投稿稿件须为未发表的原创成果。
- 录用稿件将受邀进行口头报告或海报展示，并收录至会议论文集。

2. 摘要投稿 (仅作报告)

- 摘要仅用于申请报告资格 (口头报告 / 海报展示)，不纳入出版范围。
- 摘要须以英文撰写。
- 摘要字数不超过 300 词，须清晰阐明所涉研究或实践的标题、研究目的、研究方法以及研究成果。
- 所有投稿均由会议委员会进行同行评审。
- 详细信息请见——<https://icre.org/sub.html>

会议日程 >>>>

- 2026年7月19日- 签到注册
- 2026年7月20日- 开幕式+主旨报告+作者报告
- 2026年7月21日- 开幕式+主旨报告+作者报告
- 2026年7月12-25日-青年学者论坛 + 2026北航国际暑期学校

会议地址 >>>>

杭州市北京航空航天大学国际创新研究院 (北京航空航天大学国际创新学院)
地址: 杭州市余杭区瓶窑镇双红桥街166号

中国杭州

杭州，一座融千年文脉与诗画风光的江南名城，三大世界文化遗产勾勒其独特魅力。西湖碧波漾诗意，良渚遗址藏远古智慧，大运河流淌南北烟火。宋韵风雅浸润红墙古社，新潮玩法解锁别样体验，鲜醇杭帮菜抚慰味蕾。古典与现代交织，漫步街巷皆是惊喜，正静待八方游客前来探寻。

重要日期 >>>>

- 投稿截止日期: 2026年4月10日
- 审稿通知日期: 2026年5月05日
- 注册截止日期: 2026年5月20日



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