

The 6th International Forum on Big Data for Sustainable Development Goals (FBAS 2026)

Session Proposal Template

<i>Session Title</i>	<p>大数据与 AI 技术赋能全球航道绿色化治理</p> <p>AI and Big Data for Greening Global Shipping Routes</p>	
<i>Session Chair(s)</i>	<i>Name</i>	<p>Pengjun Zhao; Tingting Kang; Caixia Zhang; Tianyu Ma</p> <p>赵鹏军, 康婷婷, 张彩霞, 马天宇</p>
	<i>Affiliation</i>	<p>College of Urban and Environmental Science, Peking University</p> <p>School of Urban Planning and Design, Peking University</p>
	<i>Profile (200-word limit)</i>	<p>Pengjun Zhao is Boya Distinguished Professor and Dean of the School of Urban Planning and Design at Peking University. He is a Fellow of the UK Academy of Social Sciences and the Geographical Society of China, and serves as Director of the Key Laboratory of Land Surface System and Human–Earth Relations. He is also Vice Chair of the Transport Geography Commission of the International Geographical Union and Editor-in-Chief of <i>Cities</i>. His research focuses on transport geography, with over 240 publications, including papers in <i>PNAS</i>, <i>Nature Cities</i>, and <i>Nature Communications</i>. His recent work explores interdisciplinary linkages between transport, ocean, and atmospheric systems, particularly the impacts of climate change and geopolitics on global shipping networks.</p> <p>Tingting Kang is an Associate Research Fellow at Peking University, specializing in maritime big data, shipping emissions accounting, and green shipping planning, with 24 publications and two NSFC-funded</p>

		<p>projects.</p> <p>Caixia Zhang focuses on maritime safety, climate risks, and ocean hazard simulation, with five <i>Nature Communications</i> papers and one NSFC project.</p> <p>Tianyu Ma works on strategic resource security, infrastructure governance, and computational social science, with 20 publications and two NSFC projects.</p>
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<i>Preferred Topics</i>	数智技术加速全球可持续发展	
<i>Session Description</i> <i>(200-word limit)</i>	<p>Against the backdrop of the shipping industry's accelerating green transition, digital and intelligent technologies are becoming critical enablers of sustainable waterway governance. This session will explore how big data and artificial intelligence can support greener waterways, with a focus on shipping emissions management, including carbon emissions and air pollutants, waterway operation optimization, environmental risk early warning, and coordinated governance across ports and shipping systems. By integrating multi-source data with advanced analytical tools, the session aims to promote a shift from experience-based decision-making to data-driven management. It will also provide a platform for discussion on green route optimization, data sharing, and international collaboration, fostering closer integration between technological innovation and governance practice. In addition, the session will highlight representative application scenarios and regional experiences, and examine differentiated pathways for green waterway</p>	

	<p>governance in countries at different stages of development. Addressing persistent challenges such as data silos and inconsistent technical standards, the session will further consider pathways toward more open data sharing and greater regulatory coordination, contributing to a more inclusive, efficient, and sustainable global waterway governance system.</p>
<p><i>Expected outcomes</i> <i>(50-word limit)</i></p>	<p>To propose digital and intelligent approaches and avenues for collaboration in the green management of waterways, promote academic and practical exchanges, provide a platform for young scholars to showcase their work and engage in dialogue, and facilitate the translation and application of relevant research findings.</p>

Please submit filled session proposal to fbas@cbas.ac.cn before **April 20, 2026**