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Empowering Innovation and Discovery: The BRICS Hackathon and the PANOPTES Project

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Abstract

This talk explores the dynamic intersection of collaborative innovation and citizen science within the BRICS community through the lens of the BRICS Hackathon and the PANOPTES Project. The BRICS Hackathon serves as a vital platform to cultivate data science skills and foster multinational collaboration among young scientists, aiming to tackle real-world developmental challenges using advanced technologies including machine learning and drone imagery. Beyond competition, it emphasises teamwork, entrepreneurship, and practical experience to drive innovation and sustainable development across BRICS countries. Complementing this, the PANOPTES Project is presented as a pioneering citizen science initiative that democratizes space science by enabling the construction and deployment of low-cost, robotic telescopes to detect transiting exoplanets. This project fosters scientific discovery and public engagement in astronomy worldwide. Together, these initiatives illustrate how collaborative efforts in technology and science within the BRICS nations can empower innovation, inclusivity, and lasting social impact on a global scale.