

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
New Worlds - Non-Traditional Space Education and Outreach (7)

Author: Mr. LeRoy Larry
Costa Rica, leroy@natural-physics.com

PULLING BACK THE CURTAIN TO REACH THE STARS: FROM THE 'HOOD TO JUPITER!

Abstract

Natural Physics is a concept I developed that explains in down-to-earth scenarios how the principles of physics could have come about from observing Nature. Each episode begins with a scenario, followed by an example to illustrate the application of these principles in futuristic research at the frontiers of science, and then concludes with an exploration of how these same principles could have very well been used by ancient cultures and civilizations. Mathematics is naturally encountered and incorporated as the exciting and fun tool of science that it is. Science is the window into our amazing world of Nature and mathematics is the tool to open that window! Natural Physics encompasses current, futuristic, and ancient physics, and ties them together by the principles of physics that are common threads running throughout each! Natural Physics Global Outreach is the implementation of my outreach methodology, as embodied in Natural Physics, on a global scale. The challenge is to connect people the world over with the benefits that applications from space science and technology can bring to their countries. The solution is a global outreach methodology adaptable to any target group, age range, subject matter, level, country, culture, and language, around the globe. The proof is The National Workshop on Astronomy for Teachers, where the target groups were primary and secondary school teachers, the subject matter was Astronomy, and the country was Nigeria. The National Workshop on Astronomy for Teachers, 22 - 23 June 2016, Federal University of Technology Akure (FUTA), Ondo State, Nigeria, was designed to promote the teaching of STEM by introducing Astronomy, in a simplified and readily comprehensible format, to primary and secondary school teachers in Nigeria. As the Invited Guest Speaker and Professional Trainer my presentations led to representative schools incorporating Astronomy into their academic curriculum or as an enrichment program. The global space education and outreach methodology that was successful at the Workshop, successful with gang-affiliated inner-city high school students in the United States, successful in Costa Rica with audiences at the Planetarium of San Jose and Women's Organizations, and successful at the 2021 Space Exploration Educators Conference (SEEC) in providing innovative techniques to inspire under-served and under-represented inner-city youth and young women to gain footholds in the space industry, is here demonstrated to reach, educate, and motivate, people the world over about the benefits that applications from space science and technology can bring to developing and developed countries.