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PALESTRA NO INPE

DATA:15:00 às 16:00*****, 5ª. Feira, 25 de Abril, 2019
LOCAL: AUDITÓRIO***** do Prédio LAMBDA do INPE São José dos Campos
(*) Andar Térreo, com acesso livre | 40' de apresentação + 20' para perguntas

The NASA Space Geodesy Network

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SUMÁRIO DA APRESENTAÇÃO (*ABSTRACT*)

The NASA Space Geodesy Network (NSGN) supports the geodetic needs of current and future Earth observations by maintaining and operating in cooperation with our partners a global network of Very Long Baseline Interferometry (VLBI), Satellite Laser Ranging (SLR), and Global Navigation Satellite Systems (GNSS) ground stations. NASA continues to maintain and implement modest improvements to the legacy hardware to provide the required geodetic data products, but much of the current geodetic infrastructure is decades old and is not capable of meeting all the needs of future Earth science missions. To address the ambitious goals of improving the International Terrestrial Reference Frame (ITRF) and Earth Orientation Parameters set by the Global Geodetic Observing System (GGOS) and the US National Research Council, NASA is implementing co-located next generation geodetic stations at new and existing sites around the globe. South America remains a significant geographic gap in the global network that needs to be filled in order to realize the full improvement of the ITRF. This talk will present an overview of the NSGN and the primary applications of its data. The characteristics and capabilities of a modern NSGN site and NASA's plans for modernizing and expanding the global network will also be presented. Finally, it will describe the critical role the Brazilian geodetic stations play in the global and international effort.

BREVE CURRÌCULO (*BIOGRAPHY*)

Stephen Merkowitz is a scientist and project manager at the NASA Goddard Space Flight Center. His research interests include: fundamental tests of General Relativity, lunar and interplanetary laser ranging, and space geodesy. He received his PhD in Physics from Louisiana State University working on gravitational wave antennas, and continued this research for two years in Frascati, Italy on a National Institute for Nuclear Physics (INFN) fellowship. In 1998, he became a Research Associate at the University of Washington where he performed experimental tests of General Relativity and measurements of Newton's gravitational constant (which remains the most precise measurement of "big G" to date). In 2000, he moved to NASA Goddard to serve as Deputy Project Scientist for the LISA Project, a space based gravitational wave mission. In 2009, Merkowitz went on a yearlong detail to the Executive Office of the President of the United States covering Physical Science and Engineering within the Office of Science and Technology Policy, followed by a detail at NASA Headquarters as Assistant Director of the Astrophysics Division. He returned to Goddard in 2011 and now manages NASA's Space Geodesy Project and is Principal Investigator for the Global Positioning System Laser Retroreflector Array.