Statistics Former Student Network (SFSN)

Texas A&M University Webinar Series



ROBERT REYNOLDS, PhD

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ONLY WHAT YOU TAKE WITH YOU: RESEARCH METHODS FOR HUMAN SYSTEMS RISKS IN SPACEFLIGHT



ABSTRACT:

The National Aeronautics and Space Administration (NASA) manages 29 distinct risks to human health in space-flight, with most of these risks still requiring significant additional research to characterize and mitigate them for long-term missions beyond low Earth orbit. This talk will introduce the 29 risks as a system of risks, review the epistemological tools currently being employed to research and manage them, and will make the case that flexible, wholistic scientific reasoning is required to close the remaining knowledge and technology gaps necessary for successful missions to Mars.

BIO: Robert Reynolds earned his MPH in Epidemiology from the University of Arizona in 2001, his PhD in Epidemiology from UT Health in 2013, and his MS in Statistics from Texas A&M University in 2017. He is a Professionally Accredited Statistician® by the American Statistical Association, and is a self-taught data scientist.

Over the course of his career Dr. Reynolds has worked in research units in several universities, led teams of epidemiologists and data scientists in the health insurance industry, and for the last decade has offered expert opinions in state and Federal courts on epidemiological and biostatistical issues. In the context of occupational epidemiology, his research has focused on the long-term health of workers in unique occupations, such as professional athletes and astronauts. Since 2019 Dr. Reynolds has served as the Data Scientist for NASA's Human Health and Performance Directorate at Johnson Space Center, where he works as part of a multidisciplinary team redesigning the process by which NASA conceptualizes and manages the Human System Risks of spaceflight.

Thursday, December 7, 2023 1:00 PM - 2:00 PM, CST

Online webinar only. No meeting room.

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