Tuesday, February 15th, 2022, at 2:30pm

Speaker: Dr. Jayanne English, Associate Professor

Institution: University of Manitoba

Title: "Cosmos and Canvas: Using Data Visualization to Explore and Communicate Your Science"

Abstract:
Data visualizations that resonate with human perception strongly enhance discovery-based science. Examples include perception-based colour mappings through to bold colour images from telescopes that act as extraordinary ambassadors for astronomers. But are these astronomy images snapshots documenting physical reality or are they artistically digitized space-scapes? To answer this, the lecture illustrates how original black and white astronomy data are converted into the colour images gracing magazines and websites. It also describes how graphics are "read" by the eye-brain system and how a scientist can harness a powerful visual grammar, including colour contrast and composition, to explore data and communicate results with greater clarity to both their colleagues and the non-expert public. Often the attempt by scientists to represent their discoveries all but drowns out the voice of visual literacy. Yet sometimes in this battle, between the cultures of science and visual art, both sides win. This struggle will be presented from the perspective of a research astronomer who has created numerous images for NASA and also trained as a visual artist.

Bio: Dr. Jayanne English has been an associate professor in the Department of Physics and Astronomy at the University of Manitoba, Canada, since 2000, and is the recipient of the CASCA/RASC/FAAQ Qilak Award for public outreach. She uses space-based and radio telescopes to help trace elusive Dark Matter and to investigate how galaxies form radio halos as well as develop peculiar shapes while gravitationally interacting.

With respect to popularizing science, her forte' is producing striking astronomy outreach images that appear in prestigious magazines, popular and educational books, and numerous websites such as Astronomy Picture of the Day. English co-ordinated NASA's Hubble Heritage Project's first two years of image production. Her outreach work is well-served by her education at Ontario College of Art and Design University as well as her astrophysics degrees from the University of Toronto (B.Sc) and Australian National University (Ph.D).