



RUHR-UNIVERSITÄT BOCHUM
FAKULTÄT FÜR PHYSIK UND ASTRONOMIE

RUB



Special Seminar

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

Wednesday, March 29, 2023 - 11am / GAFO 03/252

Prof. Jayanne English
University of Manitoba

Data visualizations that resonate with human perception strongly enhance discovery-based science. Examples include perception-base 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.