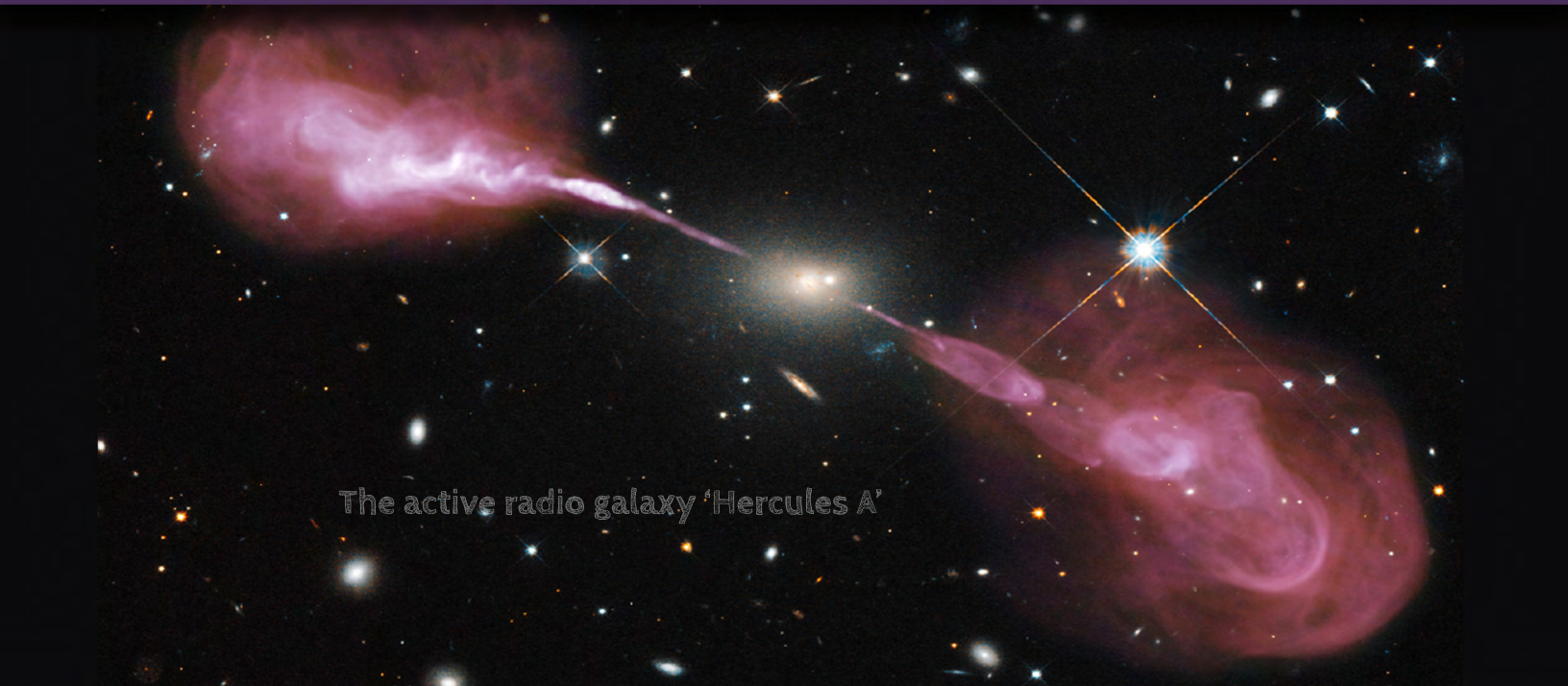


# Unveiling the Universe: What do Radio Wavelengths Reveal?

presented by Professor Farhad Yousef-Zadeh

Department of Physics and Astronomy, Weinberg College of Arts and Sciences  
Northwestern University



The active radio galaxy 'Hercules A'

**Wednesday**  
**April 18, 2018**  
**6:30 - 8:00pm**

**The Firehouse Grill**  
**750 Chicago Avenue**  
**Evanston**

Throughout our Milky Way Galaxy and other galaxies, there are thick dust and gas clouds. For centuries scientists were unable to study these obscured regions of the Universe - until the birth of radio astronomy came along in the 1930's and 1940's. During that time, it was discovered that radio waves come not just from inventions we create, but that cosmic radio emission is detected from natural parts of the Galaxy. Because of these cosmic radio waves, we are allowed a whole new window that allows us to peer into that world of thick dust and gas clouds!

Since this discovery, each generation of stronger and stronger radio telescopes has led to major discoveries over the past fifty years. Professor Zadeh will present highlights of this sub-field of astronomy which has discovered pulsars, quasars, cosmic microwave background radiation, and more. Additionally to be discussed, radio observations reveal the space between stars is filled with molecular material, hence becoming the birth place of young stars and their new planetary systems.

Science Cafe: Eat. Drink. Talk research in a relaxed atmosphere.

We are committed to promoting engagement with scientific topics and making it accessible to all.