



Considering the “Strehl” of Exoplanet Discussions

ExoPlanet Exploration Program



- What do we mean by “habitable”?
- Do we have “complete” examples of planet types?
 - “Io at 1AU”
- Are we too anthropomorphic in thinking about what spectral signatures to look for?
- Is astrometric precursor knowledge helpful for imaging completeness?
- Etc.

Who's listening?



- Scientific community – want to explore every corner, nook and cranny of the subject.
 - The Academy – is the advocating community in agreement on what to do?
- The Public – does it interest and excite? Does it stimulate interest in rigorous thinking and education?
- The “government” – does it get votes? Does it support the national agenda?
- NASA management – does the science community converge on what to do, and is it affordable?
- ExEP management – what measurements do we need to make and how?



- Discover the origin, structure, evolution, and search for Earthlike planets.
 - Search for and detect terrestrial planets that might exist in the habitable zones of nearby stars.
 - Characterize the atmospheres of all detected planets.
 - Search for indicators of the presence of life on terrestrial planets.
 - Study each planetary system (planets plus zodiacal dust) as a whole.
- Help address SMD Research Goals by:
 - Understanding how individual stars form and how those processes ultimately affect the formation of planetary systems.
 - Creating a census of extrasolar planets and measuring their properties



- ExoPAG chartered “for soliciting and coordinating community input into the development and execution of NASA’s Exoplanet Exploration Program (ExEP)”.
- Can topics be formulated and analyzed so as to converge on what ExEP should do (what mission) in addition to helping flesh out the broad framework of questions and measurements for the exoplanet field?