



## - Adaptation metrics

(how to compare two adaptive systems? how to validate adaptation? accuracy of adaptation; specification of adaptive systems, problem of benchmarking and performance measurement)

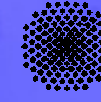
## - Mechanisms of self-adaptation

(fitness-driven and self-concept-driven, self-healing, self-diagnostics and self-protection; learning vs. self-organization vs. fuzzy vs. evolving vs. ...)

## - Adaptive “structure->function->behavior”

(topologies of networks, structural & functional generators, problem of emergence)





## Humanless environments with a low degree of predictability:

- deep space missions; new NASA Moon-Mars Program
- autonomous underwater systems
- hazardous environments



Concept of a future moon landing.  
Credit: NASA/John Frassanito and  
Associates

