

Monday, April 24, 2017

NEW TECHNOLOGIES AND TECHNIQUES: LIFE DETECTION:

SEEKING THE TRICORDER: ADVANCED TECHNOLOGIES FOR LIFE DISCOVERY AND DETECTION

10:15 a.m. Palo Verde

Chairs: Penelope Boston
Harry Partridge

10:15 a.m. Glass B. * Davila A. Parro V. Quinn R. Willis P. Brinckerhoff W. DiRuggiero J. Wilhelm M. Bergman D. McKay C. Stoker C.

[Atacama Rover Astrobiology Drilling Studies Project: First Deployment.](#) [#3216]

The ARADS project is developing a simulated biomarker-detection rover mission over four field deployments at the Atacama Desert analog site in 2015-2019.

10:30 a.m. Eshelman E. * Wanger G. Willis M. Carrier B. Abbey W. Malaska M. Beegle L. W. DeFlores L. Priscu J. Lane A. L. Mellerowicz B. Kim D. Paulsen G. Zacny K. Bhartia R.

[WATSON: A Wireline Ultraviolet Raman and Fluorescence Spectrometer for Subsurface Organic Detection in Northern Ice Sheets](#) [#3415]

WATSON is a deep UV Raman and fluorescence instrument intended to detect, characterize, and map the distribution of organic material in subsurface ice.

10:45 a.m. Cai R. * Schubert K. E. Gomez E. Boston P.

[Automated Cellular Automata Rule Extractor for Images of Extremophiles](#) [#3393]

Method for extracting “potential well” cellular automaton rule sets from a single picture of extremophiles. Rules can be used to prescreen for life.

11:00 a.m. Johnson S. S. * Ellington A. D. Anslyn E. V. Graham H. V. Mahaffy P. R.

[Fingerprinting Nonterran Biosignatures](#) [#3155]

Without presupposing any particular molecular framework, a new approach could enable the detection of agnostic biosignatures, particularly on Ocean Worlds.