

## [Dr. Rosalba Bonaccorsi](#)

v. 10-9-2024

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Dr. Rosalba Bonaccorsi is a Research Scientist at the SETI Institute and NASA Ames Research Center where she conducted Post-Doctoral research centered on source-to-sink of organics in a deep subsurface biosphere in Spain (2005-2008). In 2001 Rosalba obtained her Ph.D. in Geological, Marine, and Environmental Sciences at the University of Trieste (Italy). Formerly a teacher, she is an astrobiologist and an educator working with non-profit international, educational, and scientific organizations since 1989. For the past 16 years she has joined many NASA Spaceward Bound expeditions to extreme deserts worldwide (e.g., Atacama, Australia, Namibia, Mojave) where she served as Science Team member and Field Instructor for pre-service and in-service teachers enrolled in the expeditions. Rosalba joined the SETI Institute in 2009, and is keen to achieve a wide picture of where life and its signatures are most distributed, concentrated, preserved, and detected. Over the last 18 years, she has expanded her interest on developing analytical protocols for real-time in-situ life-detection in planetary-like materials and extreme environments worldwide. Since 2009, in collaboration with the Death Valley's National Park Service (NPS), Rosalba has been studying the distribution of life indicators in support of the Mars Science Laboratory mission, or other planned life detection missions to Mars. Over the past seven years, Rosalba has been implementing innovative laboratory experiments to simulate the Saturn's moon Enceladus environments to support future flyby life detection missions to this icy world and other Ocean Worlds of our Solar System.

For the past eight years, Dr. Rosalba Bonaccorsi has been the experimental lead of a novel project simulating ice grain plume ejecta for Icy Moons/Ocean Worlds science at the NASA Ames Vertical Gun Range (AVGR) facility. The project helped understand past data from the Cassini flybys on Saturn's icy moon, Enceladus. Rosalba hypervelocity impact experiments involve ice target setups, biological and organic sample preparation, and contamination control to prepare for future life detection missions to the ocean worlds of our solar system.

### [Education](#)

**University of Milan, Italy**, Natural Sciences, Marine Biology, minor in Marine Geology      M. S, 1997  
**University of Trieste, Italy**, Geological, Marine and Environmental Sciences      Ph.D. 2001

### [Appointments](#)

**2024 – present:** Lawrence Berkeley National Lab Associate (Advanced Light Source (ALS) User).

**2023 – present:** Clean OWLS (Clean testing for Ocean Worlds) Lab Deputy PI & Chemical Hygiene Officer.

**2014 – present:** Field trip Director, SETI Institute's Research Experiences for Undergraduates (REU)

**2021 – present:** NASA's Network for Ocean Worlds (NOW) Research Coordination Network (Member).

**2017 – 2023:** STEM Education specialist consultant

**2012, 2013:** SETI Institute's Astrobiology REU Field trip Instructor

**2009 – present:** Principal Investigator, SETI Institute

**2009 – present:** Park Researcher, *Death Valley National Park*

December 2006: Reviewer for the ESA/ESTEC ExoMars Payload Confirmation Review

**2005 – 2008:** NASA Ames NRC / NPP –Post Doctoral Fellow

**December 2003:** Reviewer for the ESA/ESTEC ExoMars (drilling) Payload  
**2001 – 2005:** Research Associate at *University of Trieste*  
**2001 – 2002:** Research Consultant at *Geokarst Engineering S.r.l.* AREA Science Park, Trieste, IT  
**Jun – Aug 2001:** Sailing Scientist onboard JOIDES Resolution (Ocean Drilling Program Leg-197).  
**Jul 1999 – Aug 2000:** Visiting Scholar at Lamont-Doherty Earth Observatory - Palisades, NY, USA

## Grants

2024 - current. Constraining the macromolecular organics in Enceladus' plumes under hypervelocity impact conditions using Berkeley Lab Advanced Light Source (ALS) beam time (line 9.0.2).  
2022 – current: NASA Cassini Data Analysis Program (Co-I): *Macromolecular organics in Enceladus' plumes*.  
2009 –2012: NASA Planetary Protection (Co-I): *Raman UV/Fluorescence Bioburden Monitoring*  
2021 –2024 to date: NSF REU (Co-PI): Life in the Universe - Astronomy and Planetary Science Research Experience for Undergraduates at the SETI Institute.  
2018 –2021 to date: NSF REU (Co-PI): Life in the Universe - Astronomy and Planetary Science Research Experience for Undergraduates at the SETI Institute.  
2014 –2017 to date: NSF REU (Co-PI): Life in the Universe - Astronomy and Planetary Science Research Experience for Undergraduates at the SETI Institute.

## Awards and Honors

- 2019: NASA Group Achievement Award to the Atacama Rover Astrobiology Drilling Studies (ARADS)
- 2015 NASA Group Achievement Award to the “Ames 75th Anniversary Open House Champions”.
- 2013 NASA Group Achievement Award to the “NASA Ames Family”.
- 2007 NASA Group Achievement Award to 2006 Spaceward Bound Atacama Desert Expedition.
- 2006 NASA Group Achievement Award to Mars Analog Research Technology Drilling Experiment.

## NASA Spaceward Bound (SB) Expeditions Team member/Science Instructor/other expeditions

- **Sept. 5– 25, 2019:** Atacama Rover Astrobiology Drilling (ARADS) Expedition, Chile
- **March 8 – 27, 2019:** Atacama Rover Astrobiology Drilling (ARADS) Expedition, Chile
- **October 16 – 22, 2017:** Spaceward Bound (SB) Expedition MINAR 5, UK
- **August 7 – 21, 2016:** India & Tibetan Plateau Leh-Ladakh SB Expedition
- **January 15 – 23, 2015:** New Zealand SB Expedition.
- **March 22 – 28, 2014:** Mojave Desert (SB) Expedition (California).
- **June 13 – 18, 2013:** Idaho SB Expedition (USA).
- **June 17 – 22, 2012:** Idaho SB Expedition (USA).
- **April 21 – May 2, 2012:** Namib Desert SB Expedition (Namibia).
- **April 2012:** Mojave Desert SB Expedition
- **July 9 – 20, 2011:** Pilbara SB Expedition (WA).
- **June 25 – 30, 2011:** Idaho SB Expedition (USA).
- **March 20 – 25 2011:** Mojave Desert SB expedition
- **April 13 – 26, 2010:** Namib Desert SB Expedition (Namibia).
- **March 2010:** Mojave Desert SB Expedition
- **May 2010:** Atacama Desert SB expeditions (Chile).
- **June 7 – 16, 2009:** South Australian Desert SB Expedition (SA).
- **March 23 – 27, 2009:** Mojave Desert SB expedition

- *March 20 – April 14, 2008*: Atacama Desert SB expeditions (Chile).
- *March 25 – 30, 2007*: Mojave Desert SB expedition
- *June 19 – July 1, 2006*: Atacama Desert SB expedition (Chile).
- *May – June 2006*: Rio Tinto NASA MARTE expeditions (Spain).
- *March 2006*: Mojave Desert SB expedition
- *2005*: Rio Tinto MARTE expeditions (Spain).
- *January 2005*: Shetland Islands and Antarctic Peninsula expedition onboard RV Explorer.
- *September 2004*: Rio Tinto NASA MARTE expeditions (Spain).

### Education activity in Death Valley National Park

- **2021 – present**: Field Education events lead Death Valley Natural History Association (DVNHA)

<https://dvnha.org/program-events/exploring-space-from-death-valley/>

- **2013 – 2014**: DVNHA Road Scholar Program Field Instructor
- **2020 – present**: lead Death Valley Death Valley Dark-Sky-Festival events  
<https://www.nps.gov/deva/planyourvisit/death-valley-dark-sky-festival-field-talks.htm>
- **2011 – 2019**: Co-funder and Organizing Committee for the annual “Mars & Mojave Festival” & “MarsFest” events 2013, Death Valley Natl. Park  
<https://www.seti.org/event/join-us-marsfest-february-23-25-2018>

### Relevant Papers

- Bonaccorsi, R.**, Willson, D., Gold, R., Adams, E., Ricca, Cornelison, C.J., Wiens, J.-P., Zheng, D., Perez, A.J. and McKay, C.P., 2024 Production of high velocity micron-sized ice particles using the NASA Ames Vertical Gun Range for application to missions to icy moons. *Icarus*, 421, 116203. <https://doi.org/10.1016/j.icarus.2024.116203>
- Spry J, B Siegel, C Bakermans, D Beaty, M Bell, J Benardini, **R. Bonaccorsi**, S Castro-Wallace, D Coil, A Coustenis, P Doran, L Fenton, D Fidler, B Glass, S Hoffman, F Karouia, J. Levine, M Lupisella, J Torres, R Mogul, K Olsson-Francis, J Martin-Torres, R Mogul, S Ortega.-Ugalde, M Patel, D Pearce, M Race, et al (2024). Planetary protection knowledge gap closure enabling crewed mission to Mars. *Astrobiology* 24(3).  
<https://home.liebertpub.com/publications/astrobiology/99>
- Bonaccorsi R** et 8 others. (2024); *Astrobiology*, 24(3). Correction to: *Astrobiology* 2023;23(12):1303–1336. <https://doi.org/10.1089/ast.2022.0133.correx>
- Bonaccorsi R**, Glass B, Moreno-Paz, M., García-Villadangos M, Warren-Rhodes K., Parro V, Manchado J M, Wilhelm, M-B, McKay, CP (2023). In-situ Real-time Monitoring for Aseptic Drilling: Lessons Learned from the ARADS field Contamination Control Strategy and Implementation, *Astrobiology*, 23(12):1303-1336.
- Glass BJ, Bergman D, Parro V, et al. including **Bonaccorsi, R.** (2023) The Atacama Rover Astrobiology Drilling Studies (ARADS) Project. (2023) *Astrobiology*, 23(12); doi: 10.1089/ast.2022.0126.

- Bonaccorsi, R.** and McKay, CP (2023) The Arid to Hyper-arid Transition in desert environments: A window into the Future of Life under a Global Warming scenario. In prep. for submission to the *Int. J. of Astrobiology*
- Pandey, S., Clarke, J., Nema, P., **Bonaccorsi, R.**, et 16 al. (2019) Ladakh: Diverse, High-Altitude Extreme Environments for Astrobiology Research" *Int. J. of Astrobiology* 19(1)  
<https://doi.org/10.1017/S1473550419000119>.
- Cockell, CS et. 49 al., including **Bonaccorsi, R.** (2018). Subsurface scientific exploration of extraterrestrial environments (MINAR 5): analogue science, technology and education in the Boulby Mine, UK, *Int. J. Astrobiol.*, 18, 157–182.  
<https://doi.org/10.1017/S1473550418000186>
- Powers, L.S., Smith, HD., Kilungo, AP., Ellis, WR., McKay, CP. **Bonaccorsi, R.**, Roveda, JW. (2018). In situ real-time quantification of microbial communities: Applications to cold and dry volcanic habitats, *Global Ecology and Conservation*, Vol 16.  
<https://doi.org/10.1016/j.gecco.2018.e00458>.
- Mogul, R., Vaishampayan, P., Bashir, M., McKay, CP, Schubert, KE., **Bonaccorsi, R.**, et. 41 others. (2017) Microbial Community and Biochemical Dynamics of Biological Soil Crusts Across the Central Mojave Desert, *Front. Microbiol.*, 8:1974. *Terrestrial Microbiology*.
- Willson, D., Rask, JC, George, SC., De Leon, P, **Bonaccorsi, R.**, Blank, J, Slocombe, J, Silburn, K, Steele, H, Gargano, M., McKay, CP (2014). The performance of field scientists' observations of early fossil life in-sim space suits *Acta. Astron.*, 93, 193-206.
- Davé, A., Thompson, S., McKay, C.P., Zacny, K., Paulsen, G., Mellerowicz, B., Glass, B. Willson, D., **Bonaccorsi, R.**, and Rask, J. 2013. The Sample Handling System For The Mars Icebreaker Life Mission: From Dirt To Data, *Astrobiology*, 13(4):354-369..
- Bonaccorsi, R.**, McKay, CP., & Chen, B. (2010). Biomass and habitability potential of clay minerals- and iron-rich environments: Testing novel analogs for Mars Science Laboratory landing sites candidates, *Phil. Magazine*, 90, 2309-2327.
- Fairén, A.G., Davila, A.F., Lim, D., Bramall, N., **Bonaccorsi, R.**, Zavaleta, J., Uceda, E.R., Stoker, C.R., Wierzchos, J., Amils, R., Dohm, J.M., Andersen, D. & McKay, C.P., 2010. Astrobiology through the Ages of Mars: The Study of Terrestrial Analogs to Understand the Habitability of Mars, *Astrobiology*. 10(8):821-843.
- Stoker, CR et 31 al., including **Bonaccorsi, R.** (2008). The 2005 MARTE Robotic Drilling Experiment in Rio Tinto Spain: Objectives, Approach, and Results of a Simulated Mission to Search for Life in the Martian subsurface. *Astrobiology*, 8(5): 921-945.
- Parro, V., et 10 al., including **Bonaccorsi, R.** 2008. SOLID2: An antibody array-based life detector instrument in a Mars Drilling Simulation Experiment (MARTE). *Astrobiology*, 8(5): 987-999.
- Davila, AF, Fairén, AG & 8 al. w/ **Bonaccorsi, R.** (2008). Subsurface formation of oxidants on Mars and implications for the preservation of organic biosignatures. *EPSL*, 272:456-463.
- Miller, D.P., **Bonaccorsi, R.**, and Davis, K, 2008. Design and Practices for use of Automated Drilling and Sample Handling in MARTE While Minimizing Terrestrial and Cross Contamination. *Astrobiology*, 8(5): 947-965

- Bonaccorsi, R.**, and Stoker, C.R. (2008). Science results from a Mars drill simulation (Río Tinto, Spain) and ground truth for remote science observations. *Astrobiology*, 8(5), 967-985.
- Cannon, H.N., Stoker, C.R., Dunagan, S.E., Davis, K., Gomez-Elvira, J., Glass, B.J., Lemke, L.G., Miller, D., **Bonaccorsi, R.**, Branson, M., Winterholler, S. and Zavaleta, J. (2007). MARTE: Technology Development and Lessons Learned from Mars Drilling Mission Simulation. *Journal of Field Robotics*, 24(10):877–905.
- Bonaccorsi, R.**, T. Quaia, L.H Burckle, R.F. Anderson, R. Melis, and A. Brambati, (2007). C-14 age control of pre- and post-LGM events using *N. pachyderma* preserved in deep-sea sediments (Ross Sea, Antarctica). In *Antarctica: A Keystone in a Changing World – Online Proceedings of the 10th International Symposium on Antarctic Earth Sciences*. edited by A.K. Cooper and C.R. Raymond et al., USGS Open-File Report 2007-1047, 4 p.
- Duncan, R., Tarduno, J., Scholl, D., and The Leg 197 Shipboard Scientific Party including **Bonaccorsi, R.** (2003). ODP Leg 197: a paleomagnetic test for motion of the Hawaiian Hotspot. *JOIDES J.*, 29(1):2-5.
- Shipboard Scientific Party, including **Bonaccorsi, R.** 2002. ODP, Initial Reports 197: College Station, TX (Ocean Drilling Program), p.1-92. CD online version.
- Bonaccorsi, R.**, Finocchiaro, F., Quaia, T., and Brambati, A. 2000. From basal till to open-water sedimentation: late Pleistocene to Holocene Changes in Core ANTA95-77C2 (G. Challenger Basin - Ross Sea, Antarctica) *Terra Antarctica Reports* 4, 185-198.
- Bonaccorsi, R.**, Brambati, A., Buseti, M. and Fanzutti, G.P., 2000, Relationship among X-ray lithofacies, magnetic susceptibility, P-waves velocity and bulk density in Core ANTA95-89C (Ross Sea, Antarctica). *Terra Antarctica Reports* 4, 241-258.

### Presentation at conferences

- Bonaccorsi, R.**, Glass, B.J, Stoker, C.R and McKay, C.P (2024) Contamination Control in Non-clean Room Settings: Lessons from the Atacama Rover Astrobiology Drilling Studies (ARADS) and Application to Ocean Worlds. *Planetary Protection Panel (PPP.3)*, 45th COSPAR Scientific Assembly, 13 - 21 July 2024, Busan, South Korea
- Bonaccorsi, R.**, Glass, B.J and McKay, C.P (2024) Swiss Army Tool for Safer and Faster Ocean Worlds Aseptic Sampling - Lessons from Astrobiology and Technology Field Drilling Trials. *AbSciCon (Astrobiology Science Conference) May 5-10, Abstract [#\_1499561]*. <https://agu.confex.com/agu/abscicon24/meetingapp.cgi/Paper/1499561>
- Glass B.J, Stoker C, **Bonaccorsi R.**, Wilhelm, M.B (2024) Field Analog Lessons-learned in the ARADS Deployments. *AbSciCon May 5-10, Abstract [# 118-02]*. <https://agu.confex.com/agu/abscicon24/meetingapp.cgi/Paper/1499593>
- Bonaccorsi R.**, Willson D., Gold R., Adams E., **Ricca, A.**, Cornelison C.J., Wiens J-P., Zheng D., Perez A. J., McKay C. P. (2024). Production of High Velocity Micron-Sized Ice Particles Using the NASA Ames Vertical Gun Range for Application to Missions to Icy Moons. *55th LPSC, 55th LPSC (Lunar Planetary Science Conference), March 11-15, 2023, abstract [#3040]*.

- Bonaccorsi, R.**, Willson, D., Gold, R., Ricca, A., McKay, C.P., Adams, E. (2022). Taming the Untamable: Making an Enceladus-like plume by hypervelocity oblique impacts at the NASA Ames Vertical Gun Range, Paper #31594 *COSPAR*, Athens (Greece); 16-24 July.
- Bonaccorsi, R.** and McKay, CP (2022) Rainfall Monitoring at the Extremes: The Arid to Hyper-arid Transition and the Future of Life. Paper #318-4 318 - Astrobiology and the Future of Life: Evidence, Analogy and Prediction. *AbSciCon*, 15-20 May, Atlanta, GA
- Bonaccorsi, R.**, Bishop, JL, Burton, ZFM (2020). Salty clay sites in the Mojave Desert as analogues for Mars: VNIR spectroscopy investigations of fluvio-lacustrine volcanoclastic deposits. 51<sup>st</sup>. *Lunar Planet. Sci. Conf.*, Paper #2525.
- Tiscareno, M.S., **Bonaccorsi, R.**, Bishop, J.L., Bywaters, KF., Cody, AM., Caldwell, D.A., Tarter, J., and 13 others, (2020). A virtual REU program in Astrobiology and Planetary Science at the SETI Institute. *American Geophysical Union, Fall Meeting 2020*, abstract #ED035-0006.
- Bonaccorsi, R.**, McKay, C.P., and Willson, D. (2019), 2011-2018: Engaging the Public with MarsFest Events in Death Valley National Park, Paper #407-6 *AbSciCon* Seattle, Washington, June 24-28.
- Bonaccorsi, R.**, Willson, D., Gold, R., Adams, E.Y., and McKay, C.P. (2019). Small, Fast, and Cold! Enceladus Plume Analog Simulation Experiments, Paper #402-5, *AbSciCon* Seattle, Washington, June 24-28, 2019
- Adams, E., Willson, D., Ricco, A., Gold, R.E., **Bonaccorsi, R.**, and McKay C.P. 2018. EFun: the Plume Sampling System for Enceladus, 42nd *COSPAR Scientific Assembly*. 14-22 July 2018, Pasadena, California, USA, Abstract ID. B5.3-63-18.
- Willson, D., **Bonaccorsi, R.**, Gold, R., Adams, E., Ricco, A.J., and McKay, C.P. 2018. Contamination Management of Sample Collection Devices and Ocean Analogs for Life Detection on Icy World Plume Fly-through Missions. 42nd *COSPAR Scientific Assembly*. 14-22 July 2018, Pasadena, California, USA
- Bonaccorsi, R.**, Wilson, D., Davila, A., Stoker CR., McKay CP. (2017) Life Detection in Briny Environments. Planetary Science Vision 2050 Workshop #8246, LPI No. 1989.
- Bonaccorsi, R.**, McKay, C. P. Mogul, R. Boston, P. Willson\*, D., Heldmann, J., Baker, L. Cowan, D. Pandey\*, S., Sharma, M., Sun, H., Blank, J.G., Stoker, C.R. Mogosanu, H., Campbell, I., Phartiyal, B., Rask, J.C. Clarke, J. and the 2006-2016 SB Teams, (2017). Spaceward Bound's 11-Year History: To Extreme Environments on Earth and Beyond. *AbSciCon*, 2017
- Chiar, J., Phillips, C.B., Rudolph, A., **Bonaccorsi, R.**, Tarter, J., Harp, G., Caldwell, D.A., DeVore, E. K., (2016) Life in the Universe - Astronomy and Planetary Science Research Experience for Undergraduates at the SETI Institute. *American Geophysical Union, Fall Meeting 2016*, abstract #ED51B-0799.
- Bonaccorsi, R.**, Fairen, A., Willson, D., McKay, C.P., Mahaffy, P.R., Zent, A., 2015. Hollow Nodules gas escape sedimentary structures in Lacustrine Deposits on Earth and Gale Crater (Mars). AGU Fall Meeting, San Francisco 14-18 December 2015. Paper #PS23A-4258
- Bonaccorsi, R.**, Baker, L., McKay, C.P., Mahaffy, P.R., Zent, A.P., Willson, D. 2015 Hollow Nodules in Lacustrine Deposits as new Proxy for Habitable Environments on Earth and Mars, Astrobiology Science Conference 2015, Paper #7719.

- Bonaccorsi, R.**, McKay, C.P., Baker, L., Willson, D. Zent, A. 2015 Hollow Nodules Biosignatures in Lacustrine Deposits on Earth and Mars: Pizza or Pancakes? Astrobiology Science Conference 2015 (2015), Paper #7087.
- Bonaccorsi, R.**, Zent, A., McKay, C.P., 2014. Monitoring Surface Moisture of Crater-fill Sediment in Extreme Hydroclimatic Conditions (Ubehebe Volcanic Field, Death Valley, California). AGU Fall Meeting, San Francisco 15-19 December 2014. Paper #EP53A-3632.
- Radu, H.I., **Bonaccorsi, R.**, and Radu, C.E 2014. Erosion Effects of Liquid Water and Volatiles in a Former Lacustrine Environment - From Gale Crater to Death Valley. AGU Fall Meeting, San Francisco 15-19 December 2014. Paper#P31D-4013.
- Bonaccorsi, R.**, Baker, L., Zent, A.P., Valdre', G, Willson, D., Friese, R., McKay, C.P. 2014 Source-to- Sink of Crater Fill Deposits in Arid Hydroclimatic Conditions (Ubehebe Volcanic Field, Death Valley, CA). 2014. Paper No. 175-13. 2014 GSA Annual Meeting in Vancouver, British Columbia, 19–22 October 2014.
- Bonaccorsi, R.**, Baldino, T., Jones, A.J.P. Kyriazis, S.F., Devore, E., Fuhrmann, K.K., McKay, C.P., Willson, D., Mahaffy, P.R., and Bleacher, L.V., 2014. Marsfest Events and on Site Outreach Activities in Death Valley Natl. Park: A Journey Into A Crater 2014. Paper No. 258-8. 2014 GSA Annual Meeting in Vancouver, British Columbia, 19–22 October 2014.
- Bonaccorsi, R.**, Jones, A.J.P., Baldino, T., Bleacher, L.V., and C.P. McKay 2014. MarsFest: an Annual Planetary Analog Event Hosted by Death Valley National Park. [abstract 2904]. 45th LPSC March 18–22, 2013, The Woodlands, Texas.
- Jones, A.J.P., **Bonaccorsi, R.**, Kyriazis, S., Baldino, T., Bleacher, L.V., and L. Coe, 2013. Mars And The Mojave: A Planetary Analog Festival In Death Valley National Park. [abstract 2846]. 44th LPSC March 18–22, 2013, The Woodlands, Texas.
- Bonaccorsi, R.**, Friese, R., McKay, C.P., and Willson, D. 2012. Planetary Analog Research and Climate Change Monitoring in a Land of Extremes: The Ubehebe Volcanic Field (Death Valley, CA). AGU Fall Meeting, San Francisco 3-7 December 2012. Abstract #P11B-1839.
- Bonaccorsi, R.**, Kyriazis, S., Coe, L, and McKay, C.P, 2012 Astrobiology Field Analog Research, Education, and Conservation at the Ubehebe Volcanic Field (Death Valley National Park, California): Discovery and Awareness for a possible tomorrow. AbSciCon 2012 #1132, 16-20 April, Atlanta, GA.
- Bonaccorsi, R.**, Willson, D., McKay, C.P, Valdre', G., 2012 Astrobiology field research in a High-Fidelity Desert Analog Site: The Ubehebe Volcanic Field (Death Valley, California). Astrobiology Science Conference, AbSciCon 2012 #3102, 16-20 April, Atlanta, GA.
- Bonaccorsi, R.**, Shirey T.B., Vimercati, L., McKay, C.P., and Chen, B., 2010. Astrobiology of Clays: Habitability potential and microRaman detection of biosignatures (LPS, ATP, and DNA) in clay minerals analogs for Mars Science Laboratory and Exomars missions. Paper IAA-S10-0203. 2nd SETI Conference, London 2010 - IAA Symposium on SEARCHING FOR LIFE SIGNATURES, 6-8 October 2010, Kavli Royal Society International Centre, London (UK).
- Bonaccorsi, R.** and McKay, C.P. 2009. Gram-negative Biomass in Clay Minerals Analogs: Testing Habitability Potential for the 2011 Mars Science Laboratory Mission, Eos, Vol. 90, Number 52, 29 December 2009, Fall Meet. Suppl., Abstract P43C-1444.

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- Bonaccorsi, R.** 2008. Organics in Phyllosilicate-rich materials from the Rio Tinto, Spain and their relevance to phyllosilicate-bearing outcrop seen on Mars. Clay Mineral Society Symposium, 8 March, New Orleans.
- Bonaccorsi, R.**, and McKay, 2008 Total biomass and organic carbon along a N-S moisture gradient of the Atacama Region, Chile [abstract 1489]. In 39th Lunar and Planetary Science Conference Abstracts, LPI Contribution, Lunar and Planetary Institute, Houston.
- Bonaccorsi, R.**, Stoker, C.R and The MARTE Science Team. 2008. Preservation of Organics in the Rio Tinto System: Unraveling Geochemical Patchiness in a Subsurface Mars Analog. The 5th Astrobiology Science Conference. Santa Clara, CA, April 14-17 2008.
- Miller D. and **Bonaccorsi, R.** 2008 Lessons Learned from Microbial Contamination in MARTE Field Tests. AbSciCon 2008. Santa Clara, CA, April 14-17 2008.
- Bonaccorsi, R.**, Stoker, C.R., and the MARTE Science Team. Organics in Aseptic Rock Samples From the Mars Analog Rio Tinto Drilling Experiment 2007 Bioastronomy2007 15-20 July 2007 San Juan (Puerto Rico).
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- Bonaccorsi, R.**, Stoker, C.R., and the MARTE Science Team. Organics in Aseptic Rock Samples From the Mars Analog Rio Tinto Drilling Experiment: What lies beneath? 2007 LPSC
- Bonaccorsi, R.**, Stoker, C.R., and the MARTE Science Team. 2006. Subsurface Organics in Aseptic Cores From the MARTE Robotic Drilling Experiment: Ground truth and Contamination Issues. AGU Fall Meeting, San Francisco 11-15 December 2006.



- Glass, B., Cannon, H., **Bonaccorsi, R.**, and Zancy, K., 2006 Mechanical Alteration and Contamination Issues in Automated Subsurface Sample Acquisition and Handling. AGU Fall Meeting, San Francisco 11-15 December 2006
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