Prof. Dr. Robert F. Wimmer-Schweingruber

Institute of Experimental and Applied Physics
Kiel University, Kiel, Germany

Tel: 0431 880-3964
wimmer@physik.uni-kiel.de

From Kiel to Mars – Mars Science Laboratory

NASA's rover Curiosity landed on Mars back in August 2012 and has been exploring Gale crater ever since to answer the question whether Mars was ever habitable. In other words, could life have existed on Mars in the distant past? The Radiation Assessment Detector (RAD) is part of Curiosity's scientific payload and measures the radiation dose that future astronauts would exposed to on their way to Mars and back, but also on the surface of Mars. This radiation is highly penetrating and can destroy extant tracers of life. Since its landing on Mars Curiosity and RAD have kept on functioning flawlessly and delivering exciting surprises and scientific discoveries.

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Robert Wimmer-Schweingruber obtained his PhD in physics from the University of Bern, Switzerland in 1994. After a Post-doctoral stay at the University of Maryland in College Park he was asked to return to Bern to take charge of its contribution to two instrument suites on two NASA space missions in 1996. He subsequently led the development of a new instrument for NASA's STEREO mission and obtained his habilitation/venia docendi in 2001. In 2002 he moved to Kiel University to head the Extraterrestrial Physics division where he led the development of the Radiation Assessment Detector for NASA's Mars Science Laboratory mission. Its success paved the path for further involvements in space missions, most notably the European Space Agency's Solar Orbiter and China's Chang'E 4 missions. His scientific interest is to understand how radiation is accelerated and transported in the heliosphere, a giant plasma bubble that surrounds the Sun and shields the solar system from the interstellar medium.