Dr. Karel Schrijver

Dr. Karel Schrijver received his doctorate at the University of Utrecht, the Netherlands, on the topic of solar and stellar magnetic activity. After postdoctoral appointments at the University of Colorado and the European Space Agency, and a fellowship of the Royal Netherlands Academy of Sciences, he now is senior fellow at the Lockheed Martin Advanced Technology Center. His research focuses on the magnetic activity of the Sun, the coupling of the Sun's magnetic field into the heliosphere and its solar wind, the manifestations of magnetic activity of other Sun-like stars, and the impact of solar variability on society.

In addition to scientific research, he is actively involved in developing and operating space instrumentation: he was the science lead and later the Principal Investigator for the Transition Region and Coronal Explorer (TRACE) and for the Atmospheric Imaging Assembly (AIA) of the Solar Dynamics Observatory (SDO), and is co-investigator on the Helioseismic and Magnetic Imager (HMI) on SDO and on the Interface Region Imaging Spectrograph (IRIS) SMEX project. As LM Senior Fellow at the Advanced Technology Center, he is involved in defining and developing instrumentation for future heliophysics missions.

He has served in NASA advisory functions, including the NASA Sun-Earth Connection strategic planning (RoadMap) teams for 2000 and 2003, the panel on Theory and Modeling of the NASA Living-With-a-Star (LWS) initiative, the LWS Science Architecture Team, the LWS Mission Operations Working Group (MOWG; 2003-2005) the Solar-Heliospheric MOWG (2007-2009), the LWS TR&T Steering Group (2010, and 2012), the NASA Heliophysics Subcommittee (2010-…), and the Science Definition Teams of the Solar Orbiter and Solar Sentinels. He was a member of the NRC Space Studies Board (2002-2005).

His interests include disseminating newly developed understanding of our neighboring star and its influence on society to students and the general public. He co-authored the first textbook on solar and stellar magnetic activity and defined and led the first phase of the Heliophysics Summer School that resulted in a textbook series on heliophysics as an integrated science. He has written popular science papers in, for example, Sky and Telescope; he developed multiple posters and an annual calendar for public distribution; and he has been an advisor in, or contributor to, science programs for planetariums, an international IMAX production, and public television programs.