
**Memorial Resolution of the Faculty of the University of Wisconsin-Madison
On the Death of Professor Stefan Westerhoff**

Stefan Westerhoff was born on December 25, 1967 and died on August 5, 2018, at the age of 50, after a long illness. Stefan was born in Hagen, Germany and received his Ph.D in physics from the University of Wuppertal in 1996. He arrived to the U.S. as a postdoctoral researcher at the University of California at Santa Cruz and spent time at Los Alamos National Laboratory.

Following a period of time on the faculty at Columbia University, Stefan joined the UW-Madison physics department in 2007 and was promoted to full professor in 2012. Stefan was also a faculty member in the Wisconsin IceCube Particle Astrophysics Center (WIPAC).

Stefan was a leading expert in the exciting and growing field of particle astrophysics, and he helped pioneer the early and rapid expansion of this field in the U.S. and throughout the world. He had an illustrious research career in his chosen subfields of cosmic ray physics and gamma ray astrophysics. Stefan was a key contributor to a suite of historic experiments concentrating on the search for the enigmatic sources of cosmic rays: the High-Energy-Gamma-Ray Astronomy (HEGRA) detector array in La Palma, Spain, the High Resolution Fly's Eye (HiRes) detector in Utah, the Pierre Auger Observatory in Argentina, the Milagro telescope in New Mexico, and, in the past decade, the IceCube Neutrino Observatory, located at the South Pole and operated by UW-Madison, and the High Altitude Water Cherenkov (HAWC) Observatory near Puebla, Mexico. Stefan was particularly recognized for his anisotropy studies of cosmic rays, where he and his students developed many new ideas and methods of great utility in the field.

Stefan was known not only for his impeccable standards of quality in his research, but also for his dedication and commitment to excellence in teaching and student mentoring. A beloved instructor who taught courses ranging from undergraduate major core curriculum requirements to Acoustics for Musicians, Stefan had a dedicated following of undergraduates who considered him the best physics teacher they had ever had. Stefan also pioneered curricular changes to the undergraduate major sequence that have enhanced the department's educational mission and will persist for years to come.

Stefan was a superb advisor and mentor to many graduate students, including four at Columbia (Chihwa Song, Chad Finley, Segev BenZvi, and Andrew O'Neill), and eight at UW-Madison (Carl Pfindner, Jonathan Eisch, Juan Marcos Santander, Dan Fiorino, Ian Wisher, Zig Hampel-Arias, Frank McNally, and Zachary Griffith) that he guided to the completion of their doctorates. His students speak of his singular ability to create an environment in his research group that was characterized by friendliness and mutual respect, making it one in which they were allowed and encouraged to grow. They also speak of his sharp and clever mind, his precise nature, his great generosity, his amiable presence, and his ironclad integrity. He was an irreplaceable mentor and role model.

Stefan believed in the value of service, both to the scientific community and to the UW-Madison as an institution. He served on the main advisory committees covering particle

physics as well as particle astrophysics, from the Subatomic Physics Evaluation Section (SAPES) of the Natural Sciences and Engineering Research Council (NSERC) of Canada, which he chaired in 2015, to the CERN Proton Synchrotron Committee and the advisory board of the Gran Sasso underground laboratory. His many service activities at the UW---Madison included many years on the Physical Sciences Divisional Committee and Faculty Appeals, numerous departmental service activities that included faculty hiring and recognition committees, and serving as one of the department's undergraduate advisors. He was elected a Fellow of the American Physical Society in 2013 and received a UW---Madison Vilas Associates Award in 2014. In these duties, he was a respected and admired colleague, and he was especially recognized for the constructive and thoughtful input he gave to every task that he undertook.

Stefan's great passion for music was well known. He was an accomplished classical pianist and regularly attended symphonies and opera productions throughout the world. An avid opera fan, he often visited New York for Metropolitan Opera productions and traveled throughout the globe for classical music festivals. Stefan also greatly enjoyed movies, and as with music, he was fond of the classics, mostly films released before 1940. However, he occasionally surprised his friends with his detailed knowledge of sitcoms such as The Golden Girls and Seinfeld.

Stefan was a private person with unparalleled professionalism. His illness was not widely known, and his sudden decline in health in the summer of 2018 was a shock to many who knew him. During his final days, his current and former graduate students, postdocs, scientific colleagues, friends, and family set up a caring and continuous vigil, in many cases traveling from far and wide to be with him and help manage his care during this difficult period. The dedication and loyalty that was demonstrated by the way in which so many rallied around Stefan in the last week of his life serve as a testament to his profound impact on many people. His was clearly a life well lived.

Stefan is survived by his parents, Christa and Bernd Westerhoff. He also leaves behind many friends, scientific colleagues and collaborators, and many students. While deeply saddened by the loss of Stefan at such a young age, we take comfort in the knowledge that his legacy to the physics community, the UW---Madison, and more broadly our nation and the world, has enriched us all and will be everlasting.

Memorial Committee
Francis Halzen
Albrecht Karle
Lisa Everett