

Natalia Andronova (1953–2014)

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Natalia (Natasha) Andronova passed away on 1 June 2014 at the age of 61, after a fight with cancer that lasted more than 2 years. Her kindness and smile are remembered by all who knew her as both a colleague and a friend. She helped the scientific community in many ways, serving most recently as AGU secretary for Climate in the Atmospheric Sciences section for 6 years from 2008 to 2013.

Natasha earned a bachelor's degree in mathematics from Leningrad State University in Russia and a bachelor's degree in psychology from the Leningrad School of Public Education. She then joined the atmospheric chemistry group led by Igor Karol at the Voeikov Main Geophysical Observatory in Leningrad, now St. Petersburg, Russia.

Although most of her early research on the atmosphere was in Russian, she became known to U.S. scientists through her presentations on atmospheric chemistry, especially relating to methane, at joint U.S.-U.S.S.R. (later to be U.S.-Russian) exchanges of science on environmental issues. She obtained her Candidate (Ph.D.) degree in 1993 from the Institute for Atmospheric Physics in Moscow, then under the direction of George Golitsyn.

After completing most of her courses and dissertation, Natasha left Russia in 1991 to join the Climate Research Group of Michael Schlesinger at the University of Illinois, where she was a research scientist and taught several courses. She then joined the Atmospheric, Oceanic and Space Sciences Department at the University of Michigan in 2005. At the University of Michigan, in addition to regular teaching duties, she developed the Master of

Engineering Degree in Applied Climate and served as the student advisor during its first 2 years.

Natasha had the energy and interest to conduct research across a wide range of science areas. Her earliest work applied a linear cause-and-effect analysis method to examine the stability of the Chapman photochemical cycle for ozone and the response of an energy balance climate model to various forcings. She later used this analysis method to examine changes in the energy balance as seen in satellite results and models to estimate feedbacks within the climate system. In her early work she also estimated the contribution of sources of methane from Russian wetlands, fossil fuel mining, and cattle.

Natasha's broadening interest in climate and climate change led to her contribution to an increasing set of atmospheric science issues. Her primary quest focused on trying to narrow the range of predicted climate sensitivities. She was the first author to use a simple energy balance model driven by reconstructed forcings to obtain an optimal match to the record of the global average temperature anomaly. Thus, she was a leader in exploring the relationship between climate sensitivity and net aerosol forcing.

She later participated in papers that estimated the effect of the representation of mixed-phase clouds on climate sensitivity and identified the role of low cloud feedbacks and uncertainties in water vapor feedbacks associated with the hydrological cycle. Her interest in understanding climate sensitivity and narrowing its uncertainty also led her to collaborate with economist Gary Yohe to analyze whether it was better to intervene immediately



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in energy markets to hedge against future climate change or to wait until a longer set of observed temperature changes might allow a better estimate of climate sensitivity.

Natasha is survived by two sons, Sam Schlesinger and Savva Korolev, as well as by her sister, Ludmilla Rybakova. She will be remembered by all of her colleagues as open, warm, and caring. She was attentive to them as people as well as to their scientific interests.

A list of references to some of Natasha's important papers can be found in the additional supporting information in the online version of this article.

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