In 1982, working together with Copenhagen University's Holger Pedersen and MIT's Walter Lewin on one burst source, van Paradiis discovered several dozens of optical flashes that immediately followed the x-ray bursts (observed simultaneously with a satellite), from which they were able to conclude that this burster is in a binary system. The great experience he gained in these simultaneous groundand space-based observations of brief unpredictable phenomena formed a crucial asset when he began to look for GRB counterparts. It was therefore no coincidence that his group was the first to optically identify the afterglow of GRBs and no surprise that he subsequently followed up the identifications with detailed studies of the physical characteristics of the afterglows.

Since 1992, van Paradjis was married to fellow astrophysicist Chryssa Kouveliotou, who was based at Marshall Space Flight Center. Of his 400-plus scientific papers, more than 90 were published with her.

Van Paradijs guided the PhD research of over 25 students in Amsterdam and Huntsville. He will be remembered as an outstanding scientist and teacher and as a fine colleague and friend.

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## Klaus Kinder-Geiger

Klaus Kinder-Geiger, a nuclear theorist at Brookhaven National Laboratory, perished on 2 September 1998 in the crash of Swissair Flight 111 off the coast of Nova Scotia.

Born on 1 October 1962 in Stuttgart, Germany, Klaus obtained his diplom degree in 1987 at the University of Frankfurt. Under the direction of Walter Greiner, Klaus earned his doctorate at the University of Frankfurt in 1989 with an investigation into so-called glueballs. He then held postdoctoral positions at Duke University (1989–91), and the University of Minnesota (1991–93), and was a CERN fellow from 1994 to 1996. He settled in at Brookhaven as an associate scientist in 1996.

One of the leading theorists in high-energy nuclear physics, Klaus was extraordinarily productive in his short career. He is best known for his work on incorporating perturbative quantum chromodynamics into a relativistic transport model. The numerical simulations that Klaus performed for what became known as the parton cascade model (PCM) constitute one

of the dominant models in the field. Klaus and his many collaborators applied the model to a wide variety of collisions—from electron—positron, to proton—proton, to nucleon—nucleon—at energies ranging from the 10 GeV accessible to CERN's Super Proton Synchrotron, through the 100 GeV accessible to Brookhaven's Relativistic Heavy Ion Collider, and all the way up to the 3 TeV accessible to CERN's Large Hadron Collider.

Klaus was a dynamic presence in the field of heavy-ion physics, and led the effort at Brookhaven to understand theoretically the anticipated results from RHIC's detectors. He dominated the physics he was interested in-not only through his inventiveness, but also through his energy and sheer enthusiasm, which manifested itself in his personal interests. No one who met Klaus, or "Kay Kay Gee," as he referred to himself, ever forgot him. He led a vibrant life. He always dressed in black and drove a black Porsche. He loved his guitar and rock music, as well as his art, especially his caricatures of himself.

With RHIC turning on, the physics that we will glean from that facility will be viewed through the lens of Klaus's PCM and its successors. In many ways, RHIC's physics is Klaus's physics.

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## Dorothy N. Davis Locanthi

Dorothy N. Davis Locanthi, a pioneer of the study of the spectra of red giant and supergiant stars using high-dispersion spectroscopy, passed away on 27 September 1999, in Glendale, California, after a long illness. She was one of the first women to attempt a career as a PhD astronomer.

Dorothy Davis was born on 19 April 1913 in East St. Louis, Illinois. After graduating from high school at the age of 15, she attended Vassar College, where she earned a BA in physics in 1933. The following year, she obtained a master's degree in astronomy from Mills College with a thesis on S-type stars. And in 1937, she earned a PhD in astrophysics from the University of California,

Berkeley. Her thesis described the spectrum of Antares, the bright M-type star in the constellation Scorpio.

After graduating, she taught astronomy at both Smith College (1937–38) and Vassar College (1938–39). She then spent the next year as a research fellow at the Mt. Wilson Observatory in Pasadena, California. Her next research position was at Princeton University, where, in 1940–42, she helped Henry Norris Russell to study the spectrum of ionized europium.

In 1942, she returned to Pasadena at the invitation of Walter S. Adams, the director of the Mt. Wilson Observatory. Her best known works concerned the identification of lines in the spectra of Antares (published in 1938 and 1939) and  $\beta$  Pegasi (1947). In their detail and meticulousness, those works followed the example of high-dispersion atlases of the Sun's spectrum and set a similar standard for other types of stars.

In 1943, Dorothy married Bart N. Locanthi, then a Caltech physics student.

During World War II (1943–46), she worked on several rocket projects with scientists from Caltech.

After taking ten years off from scientific research to raise her three children, she resumed her research in 1962 at Caltech, where, under the direction of Jesse Greenstein, she worked to derive stellar abundances. Young spectroscopists found her an excellent source of information and advice. She was particularly concerned that the S stars were not a single group and tried to find ways to divide them. (After she retired, it was found that some of these stars are, in fact, binaries.)

After working at Caltech, she joined the planetary atmospheres section of the Jet Propulsion Laboratory, where, from 1972, she held other jobs until her retirement in 1985.

Dorothy pursued many interests. She loved classical and church music and sang in various choirs and choruses. She was a skilled photographer; an exhibit of her work, including her picture of Albert Einstein, was held at the American Institute of Physics. Being very tall—almost 6'4"—she literally stood out at meetings. She was also an excellent athlete, and, as a teenager, broke the world record for women in the standing broad jump.

SAUL J. ADELMAN

The Citadel

Charleston, South Carolina

MICHAEL M. DWORETSKY

University College London

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