
CERN Courier

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Faces and Places (page 3)

Sessler and Chirikov celebrate their 75th birthdays



(http://images.iop.org/objects/ccr/cern/43/5/16/cernpeo11_6-03.jpg)

Sessler (http://images.iop.org/objects/ccr/cern/43/5/16/cernpeo11_6-03.jpg)

On 15 March the Lawrence Berkeley National Laboratory held an event to celebrate Andy Sessler's 75th birthday, and his many scientific achievements and humanitarian contributions. Sessler, who joined the laboratory in 1961 to work on plasma and accelerator physics, is a former director (1973-1980) and founded both the Earth Sciences and what is now the Environmental Energy Technologies Division. He continues to be very active and will soon be visiting Japan and Russia to talk on particle-beam cooling, quantum interference and stochastic phenomena in particle accelerators.

The celebration consisted of an afternoon symposium followed by a dinner in the LBNL cafeteria overlooking San Francisco bay. The symposium speakers, who covered a subset of Sessler's broad range of interests, were Larry Jones (University of Michigan), Kwang-Je Kim (ANL), Simon Yu (LBNL), Bob Palmer (BNL), George Trilling (LBNL), Art Rosenfeld (CA Energy Commission) and Irving Lerch (APS). There were more than 100 guests at the dinner, some of whom came from as far away as Japan for the event. Electronic proceedings of the symposium will be available at <http://mafurman.lbl.gov/sesslerevent> (<http://mafurman.lbl.gov/sesslerevent>).

As a lasting tribute to Sessler's accomplishments, the Accelerator and Fusion Research Division at LBNL has established a new, ongoing, postdoctoral fellowship. Announcements inviting applications will soon appear in *Physics Today* and *CERN Courier*.

A friend and colleague of Sessler's from the 1960s, Boris Chirikov, from the Budker

Institute of Nuclear Physics at Novosibirsk in Russia, and full member of the Russian Academy of Science, is also celebrating his 75th birthday this year, on 6 June.



(http://images.iop.org/objects/ccr/cern/43/5/16/cernpeo12_6-03.jpg)
Chirikov (http://images.iop.org/objects/ccr/cern/43/5/16/cernpeo12_6-03.jpg)

Chirikov started his career in experimental physics, but soon became interested in the theoretical aspects of the stability of motion of charged particles in accelerators and magnetic traps. His seminal paper of 1959 revealed unexpected chaotic oscillations that occur in Hamiltonian systems as a result of the interaction between nonlinear resonances. Based on these studies, Chirikov suggested his "criterion of overlapping resonances", which turned out to be very efficient in finding the conditions under which "deterministic chaos" arises in classical Hamiltonian mechanics. This universal phenomenon has now been found to occur in very different fields, such as geophysics, meteorology, astronomy, biology, economics and social sciences.

The analytical approach that Chirikov developed allowed him to solve many physical problems and predict new effects that were later confirmed experimentally. His review paper of 1979, published in *Physics Reports*, has been cited in more than 2400 research papers, and remains a "bible of chaos" for many researchers. In the mid 1970s investigations by Chirikov and his group provided a basis for the creation of a new field of theoretical physics, "quantum chaos", which has attracted the interest of a wide circle of researchers.

A special conference on dynamical chaos, which is devoted to Chirikov's 75th birthday, will be held in Novosibirsk on 4-9 August, 2003. For further information, see the conference website at www.inp.nsk.su/events/confs/dc2003/ (<http://www.inp.nsk.su/events/confs/dc2003/>).

New products

Final is offering high-temperature ceramic filters for gases, liquids and particles at 1400 C. Made from Mullite ($\text{Al}_6\text{Si}_2\text{O}_{13}$), the filters are suitable for applications under pressure or vacuum in aggressive chemical environments. For further

information, tel: +33 3 88 54 26 00, or e-mail: info@final.fr.

International Light Inc has announced a new research-grade scanning spectroradiometer for characterizing a large variety of light sources over a wide spectral range. The IL RGS-2 UV-VIS-NIR features two gratings for an optimal coverage from 200-1100 nm, a resolution better than 2 nm, and a stray light rejection of better than 10^{-5} . Features include an integrated internal optical filter wheel, a 250 micron entrance slit and optional fibre-optic input assemblies, complete software and a USB interface. For further information, contact Roy E Grayzel, tel: +1 978 465 5923, fax: +1 978 462 0759, e-mail: ilsales@intl-light.com, or see www.intl-light.com (<http://www.intl-light.com>).

CEDIP Infrared Systems is showing two IR cameras at trade exhibitions this summer. Designed to meet the demanding infrared analysis requirements of spectroscopic test equipment for telecoms and process-monitoring applications, the JADE SWIR is sensitive from 0.8-2.5 microns. Also on show is the EMERALD, a new high-performance, large-format (640 x 512 pixel) IR camera, which can operate up to 100 frames per second at full image size. For further information, tel: +33 1 60 37 0100, e-mail: cedip@cedip-infrared.com, or see www.cedip-infrared.com (<http://www.cedip-infrared.com>).

Page 1: Faces and Places

Page 2: Faces and Places (page 2)

Page 3: **Faces and Places (page 3)**

Page 4: Faces and Places (page 4)

Page 5: Faces and Places (page 5)