

Planck 2018

Memorial Scientific Symposium



Planck 2018 Memorial Scientific Symposium

10-11. October 2018.

Hungarian Academy of Sciences, Széchenyi Square 9, Budapest



The 'Planck 2018 Memorial Scientific Symposium' is organized on the occasion of Max Planck's 160th birthday and of the 100th anniversary of his receiving the Nobel Prize in Physics. The elementary quantum of action h discovered by Planck in the year 1900 plays a fundamental role not only in physics (from microphysics to cosmological physics), but in other natural sciences (like chemistry or biology) and modern technologies (like microelectronics), as well as in our everyday life. In 1940 Max Planck was elected to a honorary member of the Hungarian Academy of Sciences, and this is an other reason for why the Committee of Laser Physics and the Joint Committee of the History of Science and Technology celebrates the Great Master on this outstanding occasion.

At this two-days memorial scientific symposium there will be 45 minutes plenary talks on each day. Besides emphasizing historical aspects and the broad spectrum of Max Planck's contribution to physics, the altogether eleven talks to be delivered by leading experts, are also ment to reflect some present challenges for human knowledge concerning the scientific description of nature.

The participation on the 'Planck 2018 Memorial Scientific Symposium' is free of charge, however registration is required. On-line registration and detailed program:

<https://indico.kfki.hu/e/planck2018>



Local organization: Wigner Research Centre for Physics,
Hungarian Academy of Sciences.
Department of Philosophy and History of Science
Budapest University of Technology and Economics.

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Program



Scientific Committee of Laser Physics,

Joint Committee of the History of Science and Technology



WEDNESDAY, 10 October 2018

9:00 **Opening** [*Sólyom J*]

9:15 **Session 1** [9:15 – 10:45. Chairman: Varró S]

Bonitz M, Max Planck, Kiel and recent progress in the dynamics of correlated quantum many-body systems. [9:15-10:00]

Bíró T, Black-hole horizon thermodynamics and Planck scale. [10:00-10:45]

Coffee Break [10:45 - 11:15]

11:15 **Session 2** [11:15 – 12:00. Chairman: Ván P]

Csabai I, Planck Mission: a cornerstone of modern cosmology. [11:15-12:00]

Lunch Break [12:00-13:30]

13:30 **Session 3** [13:30 – 15:00. Chairman: Fehér L]

de Gosson M, The symplectic camel property and quantum mechanics: old and new results. [13:30-14:15]

E. Szabó L, The Kolmogorovian censorship hypothesis. [14:15 – 15:00]

Coffee Break [15:00 – 15:30]

15:30 **Session 4** [15:30 – 16:15. Chairman: Láng B]

Szegedi P, A conservative revolutionary – Max Planck's worldview in physics. [15:30 – 16:15]

THURSDAY, 11 October 2018

9:00 **Session 5** [9:00 – 10:30. Chairman: Patkós A]

Domokos P, Atom-photon molecules. [9:00–9:45]

Jakovác A, Quantum field theory towards the Planck scale. [9:45 – 10:30]

Coffee Break [10:30 - 11:00]

11:00 **Session 6** [11:00 – 11:45. Chairman: Bíró T]

Ván P, Relativistic thermodynamics and relativistic temperature. [11:00 – 11:45]

Lunch Break [11:45-13:30]

13:30 **Session 7** [13:30 – 15:00. Chairman: Faigel Gy]

Garab Gy, Molecular mechanisms and global effects of photosynthesis, and new vistas in the ultrafast reactions. [13:30 – 14:15]

Varró S, Black-body radiation and the forgotten heritage of Max Planck. [14:15 – 15:00]

15:00 **Closing** [*Lévai P*]