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Celebrating Nihat Berker's 70s

Guest Editors:

Aykut ERBAŞ

Alkan KABAKCIOĞLU

Michael HINCEWSKI



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- The Journal accepts English-language manuscripts and contribution is open to researchers of all nationalities.
- The Journal covers experimental and theoretical results in various branches of physics and astronomy such as atomic and molecular physics, optics, condensed matter physics, nuclear physics, particle physics, statistical physics, astrophysics, mathematical physics, field theory, gravity, cosmology as well as interdisciplinary topics related to physics.
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ABSTRACTED

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Preface

I am most deeply touched by the participants' expressions to my 2³3²nd birthday. This is what it is all about: Why work hard all your life if it is not to have friends and colleagues such as mine? This is the true reward.

I am very thankful to the organizers of this conference and Special Issue of the Turkish Journal of Physics, David Andelman, Neşe Aral, Aykut Erbaş, Alkan Kabakçiođlu, Michael Hinczewski, Ozan Sarıyer, Miraç Serim; to the Editor-in-Chief of the Turkish Journal of Physics, also my long-time friend and colleague, Prof. Alikram Nuhbalaođlu; and to all the authors and participants.

As an academic, I took my primary mission as to help produce a new generation of academicians that are better than me. With respect to achieving this, looking at over half a century, I am bluntly immodest: you all are great!

I have always said that a person's good luck is generated by that person, by never giving up as my President Prof. Sondan Durukanođlu Feyiz says. Actually, this is not hundred percent true: with the Berkers Bedia (Erim), Emin, and Selim, life has handed me the greatest chunk of good and determining luck.

Kadıköy, 11 December 2022

Preface

A tribute to A. Nihat Berker: Celebrating Nihat Berker's 70s

This issue of the Turkish Journal of Physics is dedicated to Professor A. Nihat Berker on the occasion of the international conference organized to celebrate his 72nd birthday. The event was attended by many prominent academicians from physics, literature, philosophy, and social sciences, bearing witness to the diversity and depth of Professor Berker's life-long intellectual pursuits. Details of the meeting can be reached online at <https://sites.google.com/view/nihat-berker-70s/home>.

Professor Berker's contributions to physics on the theory of phase transitions in random systems, renormalization group, spin glasses, superconductivity, and many more are well known. The concept of hierarchical (Berker) lattices he introduced to the literature has been universally accepted as an essential tool in renormalization group theory. Similarly, his earlier work on the discovery of chaos in spin glasses is now accepted as the signature of the spin-glass phase; his work unveiling the mechanism through which impurities convert first-order phase transitions to second order is now a classic. However, Professor Berker's such and many other contributions to physics as a researcher are only a fraction of his scientific footprint. More recently, he took the front seat as an unstoppable force in science education. During his recent, demanding appointments as the president of Sabancı University and, later, as the vice president of Kadir Has University, yet he never gave up teaching. His excellence in mentoring permeates across disciplines, as is exemplified in the long tradition of intense courses he has been organizing for high school and undergraduate students on topics ranging from physics to history, from philosophy to comparative literature. Most recently, he initiated a nation-wide basic sciences degree program (TEBİP) under the umbrella of the Higher Education—first of its kind—which already marked its place in the history of science education in Turkey. Professor Berker's radiant personality, inexhaustible energy, unrelenting optimism, and infinite trust in the younger generations will surely continue shining light on our paths towards perfection as scientists and human beings.

Here, we have brought together a collection of research articles contributed by the conference attendees, on topics including nonequilibrium phenomena, polymer chemistry, biophysics, econophysics, spin systems, and more. As the guest editors, we give our thanks to all the authors for their generous contributions; to Professor Alikram Nuhbalaoğlu for his guidance during the preparation of the issue as well as Dr. Miraç Serim for his editorial assistance; to the rest of the organizing committee, Professors David Andelman, Ozan Sarıyer, and Neşe Aral for their hard work before, during, and after the event; and to all of the conference attendees for a lively, inspiring, and intimate gathering. Most of all, we thank our dearest "Nihat Hoca" for touching our lives so profoundly, for teaching us that "life is hard" because every moment should be lived to its fullest as an existential struggle for essence (and fun!). We hope that this Festschrift will serve as a fitting tribute to him and his many accomplishments as a physicist and a teacher.

Guest Editors: Aykut Erbaş, Alkan Kabakçioğlu, Michael Hinczewski

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