

Fifth International Workshop “Shapes and Dynamics of Atomic Nuclei: Contemporary Aspects” (SDANCA-23), 21-23 September 2023, Sofia, Bulgaria



Description: [The Fifth International Workshop “Shapes and Dynamics of Atomic Nuclei: Contemporary Aspects” \(SDANCA-23\)](#) will be held in Sofia, Bulgaria between the **20-th (arrival day)** and **24-th (departure day)** of **September 2023**. The Workshop is organized by researchers from the Institute of Nuclear Research and Nuclear Energy (INRNE) in the Bulgarian Academy of Sciences (BAS) with the financial support of the Bulgarian National Science Fund under contract No. KP-06-N48/1. It appears as the fifth issue of the Workshop after [SDANCA-15](#), [SDANCA-17](#), [SDANCA-19](#) and [SDANCA-21](#) held in the period 2015 - 2021. The Workshop will be organized in an essentially in-person format, while remote participation will be considered as a limited option.

Aim: The aim of the Workshop is to collect researchers with interests in the field of nuclear structure and related areas giving a foundation for discussion of actual problems and new ideas, with a focus on shape dynamics and related phenomena. It is expected to outline directions of common interest and inspire joint theoretical and experimental work on different aspects of the shape-dynamics problem in atomic nuclei and other physical systems. We believe this meeting can strengthen the existing collaborations and inspire new activities on the topic.

Main topics:

- *Collective and microscopic theories of nuclear deformation;*
- *Shapes and symmetries - geometric and algebraic aspects;*
- *Shape coexistence and shape-phase transition phenomena;*
- *Complex shapes, isomers and cluster phenomena;*
- *Shapes and dynamics at the limits of stability;*
- *New data on nuclear deformations and advanced experimental techniques;*
- *Interdisciplinary aspects: shape phenomena in other physical systems.*

Program: The program will start in the morning of **21-st of September** (Thursday) and will end in the evening of **23-rd of September** (Saturday) 2023. Depending on the number of participants we plan to schedule 20+5 min talks for onsite participants. A limited number of talks may be allowed for remote participants depending on the available time and proposed subjects. As in the previous issues we will try to provide enough time for common discussions.

Publication: We have communicated with Physica Scripta and they kindly agreed to organize a focus issue with articles based on SDANCA-23 talks. The submitted manuscripts are expected to be complete and comprehensive articles related to the Workshop topic. They can be published after passing the standard peer review procedure of the journal. The submission deadline will be decided in due time. Participants who would plan to contribute are advised to start working on the article long enough before the Workshop.

Venue and Accommodation: The Workshop venue and accommodation are arranged in the hotel complex [Park-Hotel Moskva](#) in Sofia ([25 Nezabravka Str, Sofia](#)).

Fee and arrangements: The Workshop fee for onsite participation, covering 4 nights accommodation with breakfast, coffee breaks, lunch and dinner (one of which official) at the conference venue for the days 21-23 Sep. and working materials, will be collected in cash in EURO at the conference venue upon the registration before the opening. The fee is 500 EUR for regular participants and 350 EUR for students and accompanying persons. For the online participation the fee is 50 EUR to cover the technical support. It has to be paid by the **15-th of August 2023** through a bank transfer to the INRNE account given at the [Workshop web page](#). **NOTE:** the hotel reservations and payment for onsite participation are *arranged by the organizers*. Any e-mail or telephone call claiming arrangement by a company, agency, etc. would be malicious.

Access from the Airport: The conference venue is reached from Terminal 2 of [Sofia Airport](#) by metro taken to [Joliot Curie station](#). The ticket price is 1.60 Leva (about 0.80 EUR). Alternatively a taxi can be used (only the company at the official taxi station is recommended).

Visa: Formal invitation letters for participants who need to apply for a visa can be sent by the Organizers if the required details are provided to the contact e-mail below.

Registration for participation: Colleagues who wish to participate in the Workshop are invited to *fill in the registration form* available on the [Workshop web page](#) and notify us by e-mail by **30-th of June** as well as *submit abstracts* (up to 1 page in LaTeX, template available on the [web page](#)) to the [contact e-mail](#) below by **31-st of July 2023**.

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Workshop web page: <http://ntl.inrne.bas.bg/events/sdanca23/>