



Scope:

After the discovery of Halo nuclei in 1987 and a series of experiments at the first-generation radioactive beam facilities, the field experienced a boost in the time period from 1994 to 2003 when the next-generation experiments provided more precise data accompanied by theory developments. During that time, two dedicated workshop series took place regularly. The *Halo Weekends* organized in the Nordic countries starting with Copenhagen in 1994 and 1995, followed by Säröhus (1997), Copenhagen (1999), Louvain-la-Neuve (2000), Göteborg (2002), St. Petersburg (2003), and Bergen (2005). In addition, several *workshops in Trento* were devoted to the physics of Halo nuclei, one in 1996 and 2001, and a follow-up workshop in 2006. After the tremendous progress and extension, the field has seen in recent years both in experiment and theory, we feel that it is timely to restart a dedicated workshop series on this subject, which we see as a follow-up in the tradition of the aforementioned workshops, while we interpret “Halo” here as a synonym for dripline physics in general.

We decided to organize the first “Halo Week” in Bergen to discuss the status of the field and its perspectives. We hope that this starts a new series of workshops organized regularly around the world depending on the progress of the field. Following the tradition of previous workshops, we plan for a size of 40-50 participants to discuss the most recent experimental and theoretical progress and perspectives.

The topics of the workshop will include:

- Experimental and theoretical progress in the physics of Halo states
- Nuclei at and beyond the drip-lines
- Theoretical description of weakly-bound and continuum states in nuclei, atoms, and molecules
- Pure neutron systems
- Reaction theory
- General aspects and analogies

Location and Accommodation:

The conference will take place at the [Grand Hotel Terminus](#) in the conference room TERMINUS FORUM with direct access to a large outside area for coffee breaks and discussions. The conference hotel is located centrally in downtown Bergen.

Rooms have been pre-reserved in the adjacent modern hotel [Zander K](#) for a special rate. **Please book the hotel yourself as early as possible using the [link for pre-reserved rooms](#) given on our registration site.**

The transport from the Bergen international airport to the downtown area and hotel takes about 30 minutes with a frequently running [bus connection](#).

Registration and further information on <https://indico.gsi.de/e/halo-2020/>

There will be a **workshop fee of 350 €** which includes besides the conference facilities and coffee breaks, all lunches and announced social events, which will provide the platform for individual discussions.

Deadline for registration and payment of workshop fee: March 27 2020

Social events:

Reception: Sunday, July 12, 17:00

Excursion: Wednesday, July 15, 09:00 – 15:00

Workshop Dinner: Wednesday, July 15, 19:00

The Workshop will end Friday, July 17 at 15:00

Organizers:

Gaute Hagen (Oak Ridge), *Chair and local organizer*

Carlos Bertulani (Texas)

Björn Jonson (Chalmers)

Isao Tanihata (Osaka)

Thomas Aumann (Darmstadt), *Chair*

Hans Werner Hammer (Darmstadt)

Takashi Nakamura (Tokyo)

Jan Vaagen (Bergen)

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