



**The International Workshop on
Partial Wave Analyses and Advanced Tools for
Hadron Spectroscopy**

Website: <https://pwa-athos2017.hiskp.uni-bonn.de>

Physikzentrum Bad Honnef,
DE-53604 Bad Honnef, Germany,
March 13th - 17th, 2017

First Circular

The International Workshop on Partial Wave Analyses and Advanced Tools for Hadron Spectroscopy, PWA9/ATHOS4, is a combination of the 9th International Workshop on Pion-Nucleon Partial Wave Analysis and the Interpretation of Baryon Resonances and the 4th Workshop on Partial Wave Analysis Tools for Hadron Spectroscopy. It will take place at the Physikzentrum of the German Physical Society located in Bad Honnef, southeast of Bonn, Germany. Previous editions of this workshop include PWA8/ATHOS3, which was held at GWU in 2015.

The aim of the workshop is to bring together experimental and theoretical groups working in hadron spectroscopy for constructive discussions of recent results, open issues and future perspectives of the field. Common issues in meson and baryon spectroscopy related to partial-wave analyses and the interpretation of data will be emphasized.

Scientific Program

The workshop format is intended to foster discussions between experimentalists and theorists, and between different communities. To this end, only a few highlight talks are scheduled to give a general overview on the various subjects. The majority of the time will be devoted to discussion and working sessions on specific topics, organized by conveners. A few parallel blocks may be dedicated to selected problems of either baryon or meson analyses. On the Sunday preceding the workshop, we plan to organize three lectures on scattering theory and partial-wave analysis techniques for baryon and meson spectroscopy. These lectures will be given by renowned experts in the fields and are intended to facilitate discussions across community boundaries.

Main topics include

- **Spectroscopy of baryons, light- and heavy-quark mesons**
 - Recent experimental results
 - Phenomenological analyses
 - Model-independent partial-wave analysis and complete experiments
- **Tools and methods for partial-wave analysis**
 - Fit strategies
 - Model selection, significance, systematics
 - Databases
- **Theoretical constraints on amplitude analyses**
 - Unitarity and analyticity constraints
 - High-energy asymptotics from Regge theory and FESR
 - Low-energy EFT constraints
- **Hadron Spectroscopy: Lattice QCD and models**
 - Meson and baryon spectra
 - Scattering on the Lattice
- **Future directions and goals of hadron spectroscopy**
 - Global analysis
 - Upcoming experiments
 - Requests from theory and experiment
- **Hadronic input for precision observables**
 - Anomalous magnetic moment of the muon

International Advisory Committee

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Annalisa D'Angelo (Roma2 U.-INFN)
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Call for Contributions

In order to contribute to this workshop by giving a talk in one of the topical sessions, please submit the title and an abstract for your presentation through the Contributions portal on the workshop home page.

Important: The deadline for the submission of abstracts is February 12th, 2017.

Conference Venue

The conference will be held at the Physikzentrum Bad Honnef. The stately mansion housing the Physikzentrum is surrounded by a park at the foot of the Siebengebirge (“the Seven Hills”) on the right bank of the Rhine River.

In the immediate neighbourhood, an extensive net of hiking-paths in Germany’s oldest nature preserve invites pleasant short or long walks. The calm location of the Physikzentrum, combined with its proximity to well-preserved nature, provides for plenty of opportunities to either discuss physics or get some rest in between the sessions.

Public transport offers convenient access to the nearby cities of Bonn (15 km) and Cologne (40 km) with many cultural and scientific attractions.

DPG Bad Honnef
Deutsche Physikalische Gesellschaft e. V.
Hauptstrasse 5
53604 Bad Honnef

The Physikzentrum has a new guest house and a refurbished main building, providing a capacity of 60 single rooms and 20 double rooms. A specification of the room type will be available in the registration form. Meals and coffee breaks will be served at the Physikzentrum. Furthermore, a beer cellar provides another ideal locality for scientific discussions.

The number of workshop participants is limited to 100 persons due to the capacity of the lecture hall of the Physikzentrum. Rooms in the guest house will be assigned on a “First Come First Served” principle.

Room options and prices:

- Single room: 48 € per night
- Double room shared: 35 € per night
- Double room with accompanying person: 70 € per night

Meals (breakfast, lunch, dinner) will be served at the Physikzentrum. The price for full board is 31 € per day. The price for the rooms and the meals is not included in the conference fee and has to be paid directly in the Physikzentrum via cash or credit card.

Registration and Registration Fee

The registration is now open at the conference web page

<https://pwa-athos2017.hiskp.uni-bonn.de>

The conference fee is 250 €. The fee covers a welcome reception, excursion and conference dinner, conference kit, and coffee breaks. A late registration fee of 300 € will be charged after February 12th, 2017. The preferred option for payment is via bank transfer. Please note that for on-site payment of the conference fee we can only accept cash.

Visa Information

A visa is necessary for most non-EU nationals. If a letter of invitation is required, please contact the local organizers as soon as possible.

Weather

In March, the early spring weather is usually quite nice on average, but might still have an unpredictable flavor to it. Rain is not excluded, as well as some nice sunshine. Temperatures vary between 9° and 14° Celsius (50° and 60° Fahrenheit).

Important dates

February 12th, 2017:	Deadline for the abstract submission Deadline for registration and “Early Bird” fee payment Deadline for the room reservation
March 12th, 2017:	Arrival day with lectures starting at noon and a come-together in the evening
March 13th, 2017:	Start of the Workshop and reception in the evening
March 15th, 2017:	Conference excursion to Cologne and dinner
March 17th, 2017:	End of the Workshop

Contact Information

Conference website : <https://pwa-athos2017.hiskp.uni-bonn.de>

Conference e-mail : pwa-athos2017-info@hiskp.uni-bonn.de

Conference Chairs

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**We are looking forward to welcoming you
in Bad Honnef!**