

# Theory for Exploring Nuclear Structure Experiments

## Nuclear TALENT COURSE 2017

The European Center for Theoretical Nuclear Physics and Related Areas, Trento, Italy

July 3-21, 2017

### TALENT course 2017

Applications are open for the 2017 TALENT course on **Theory for exploring Nuclear Structure experiments**. The recently established initiative, Nuclear TALENT (Training in Advanced Low Energy Nuclear Theory), see also <http://www.nucleartalent.org>, a multi-national network of several European and North American institutions, aims to develop a broad curriculum that will serve as a platform for cutting-edge theory of nuclei and their reactions.

This year the Nuclear TALENT initiative organizes a course on "Theory for Exploring Nuclear Structure Experiments" to be held at at The European Center for Theoretical Nuclear Physics and Related Areas (ECT\*), Trento, Italy from July 3 to July 21 2017.

### Lecturers

The lecturers are

1. Alex Brown, National Superconducting Cyclotron Laboratory and Department of Physics and Astronomy, Michigan State University, East Lansing, MI 48824, USA
2. Alexandra Gade National Superconducting Cyclotron Laboratory and Department of Physics and Astronomy, Michigan State University, East Lansing, MI 48824, USA
3. Robert Grzywacz at Oak Ridge National Laboratory, Oak Ridge, TN 37831 and Department of Physics and Astronomy, University of Tennessee, Knoxville, TN 37996-1200, USA
4. Morten Hjorth-Jensen at National Superconducting Cyclotron Laboratory and Department of Physics and Astronomy, Michigan State University, East Lansing, MI 48824, USA and Department of Physics, University of Oslo, N-0316 Oslo, Norway

5. Gustav Jansen at Oak Ridge National Laboratory, Oak Ridge, TN 37831, USA

## How to apply and teaching material

**The deadline for applications is April 15, 2017.** For more information on how to apply see <http://ectstar.eu/node/797>, see also <http://ectstar.eu/node/2240>. A detailed content list can be found at <http://nucleartalent.github.io/NuclearStructure/doc/web/course.html>.

The target groups are Master of Science and PhD students and early post-doctoral researchers, both experimentalists and theorists interested in models for nuclear structure, phenomenological techniques for interpreting and predicting the structure of stable as well as exotic nuclei. More experienced researchers may apply, but will be considered only on a fully-self-supported basis if numbers and space permit. Local support is available for at most 15-20 participants.

## Organizers

1. Alex Brown, National Superconducting Cyclotron Laboratory and Department of Physics and Astronomy, Michigan State University, East Lansing, MI 48824, USA
2. Morten Hjorth-Jensen, National Superconducting Cyclotron Laboratory and Department of Physics and Astronomy, Michigan State University, East Lansing, MI 48824, USA and Department of Physics, University of Oslo, N-0316 Oslo, Norway

Morten Hjorth-Jensen will also function as student advisor and coordinator.

## Additional information

For additional information on each of the courses, please see <http://www.nucleartalent.org>. Prior to the TALENT course, the ECT\* organizes a Doctoral Training program on Microscopic Theories of Nuclear Structure, Dynamics and Electroweak Currents from June 12 to June 30, 2017. The doctoral training program can be combined with the TALENT course. Applicants interested in attending the doctoral training program can find more information at <http://ectstar.eu/node/2238>.



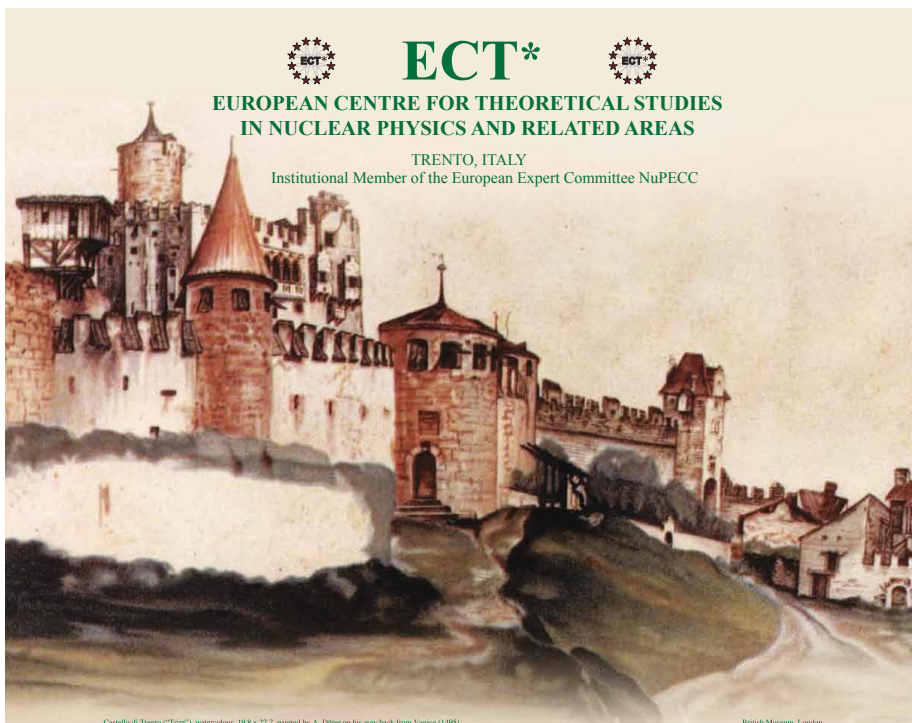
# ECT\*



**EUROPEAN CENTRE FOR THEORETICAL STUDIES  
IN NUCLEAR PHYSICS AND RELATED AREAS**

TRENTO, ITALY

Institutional Member of the European Expert Committee NuPECC



Castello di Trento ("Tina"), watercolour, 19.8 x 27.7, painted by A. Ditter on his way back from Venice (1465)

British Museum, London.

## ECT\* Nuclear TALENT School 2017

Trento, July 3-21

### Theory for Exploring Nuclear Structure Experiments

#### Organizers

Alex B. Brown (*Michigan State University*) - Morten Hjorth-Jensen (*Michigan State University and University of Oslo*)

#### Students' Coordinator and Advisor

Morten Hjorth-Jensen (*Michigan State University and University of Oslo*)

#### Topics

Basic elements of nuclear many-body physics  
Nuclear forces and effective interactions  
The nuclear shell model  
Nuclear structure experiments and nuclear many-body theory

#### Lecturers

Alex B. Brown (*Michigan State University, USA*), Alexandra Gade (*Michigan State University, USA*),  
Robert Grzywacz (*University of Tennessee and Oak Ridge National Laboratory, USA*),  
Morten Hjorth-Jensen (*Michigan State University, USA and University of Oslo, Norway*),  
Gustav R. Jansen (*Oak Ridge National Laboratory, USA*)

#### Applications

Application for the ECT\* Nuclear Talent School should be submitted electronically through the ECT\* web page.

It should include: a curriculum vitae, a 1-page description of academic and scientific achievements,  
a short letter expressing the applicant's personal motivation for attending the course.

In addition, a reference letter from the candidate's supervisor should be sent to:

Professor Jochen Wambach - Director of ECT\* (email to [Serena.degli.Avancini.serenada@ectstar.eu](mailto:Serena.degli.Avancini.serenada@ectstar.eu), fax: +39 0461 314 747)

**Deadline for applications: April 15, 2017**

**For further details see [www.ectstar.eu](http://www.ectstar.eu)**