

# OPTICON Schools

Organised by  
OPTICON WP 12

**Heidi Korhonen**  
DARK, Niels Bohr Institute  
University of Copenhagen



WP12 board members : T. Bonev (BG), M. Dennefeld (FR), R. Gredel (D), P. Kabath (CZ), H. Korhonen (DK, chair), E. Lindfors (FI), A. Pizzella (I), M. Ward (UK)  
OPTICON representative: Gudrun Pebody (UK)



HORIZON-2020

# Main tasks

## Support different types of schools

- Main school of the year: NEON Observing School
- Also organising other events:
  - life-long training: specialised workshops
  - archival schools
  - organising events in the Eastern Europe (e.g. data reduction schools, or 'hot topics' conferences)
  - instrumentation oriented schools/workshops
- Also developing synergies: joint ESO/IAU events



HORIZON-2020

# NEON Observing schools



2015 NEON School in Asiago

- Organised yearly in different European observatories
- 16-20 participants
- Student selection striving to achieve diversity of origin and gender
- Meant for people without prior observing experience, but a need to obtain it
- All the steps of observations from planning and observing to data reduction and analysis
- Groups of four students led by an experienced tutor
- Hands-on experience combined with expert lectures



HORIZON-2020

# Other events



- Hot Topic events
  - Formerly called Awareness conferences
  - Raising awareness of big questions in astrophysics
  - Have also been organized in collaboration with IAU
- Archival schools
  - Emphasis on EU observing facilities: ESO and OPTICON TNA telescopes
  - Usage of existing archival data
- Schools on specific techniques
  - For example specific techniques/instruments
  - Some schools organized together with ESO
- In many school we also organize career sessions, proposal writing exercises, etc



HORIZON-2020



# Schools in 2017



2010 NEON School on La Palma

## 2017 NEON school on La Palma

- September 4-17
- Using Nordic Optical Telescope and Isaac Newton Telescope
- 16 students selected from 72 applicants (from 13 different countries)

## Instrumentation School in Copenhagen

- July 3-12
- 1<sup>st</sup> OPTICON Instrumentation School
- Emphasis on Transient Sky
- Same format as for the ‘Alpbach school in space instrumentation’
- Instrument Phase A study with a help of an experienced tutor
- 22 participants selected from 58 applicants (from 13 different countries)



HORIZON-2020

# Plans for 2018 – 2020

- **Yearly NEON Observing Schools**
- **At least one other event every year:**
  - Proposal writing school planned for August 2018 (Poland)
  - Multi-wavelength/messenger school (optical/IR combined with X-ray, UV, sub-mm, gravitational waves, high-energy particles...) planned for 2019
  - Specific techniques, e.g., AO, wide field, etc (TBC)
  - TBD (suggestions welcome)
  - Some of these events will also include 'Hot topics' elements

Awareness conference on European Astronomy in the Optical and IR domain:

An ESO / Opticon / IAU summer school on modern instruments, their science case, and practical Data Reduction

Brno, Czech Republic  
01-11 September 2015

The summer school aims at training advanced MSc's, PhD students and postdocs on how to make use of the cutting edge facilities offered by institutions like ESO or other observatories available through the OPTICON access program (CAHA, La Palma, OHP, TBL, and so on)

The main part of the school will be a scientific project with real data, it will be accompanied by lectures given by experienced astronomers from different areas of astrophysical research.


Local costs will be covered by the school. A contribution to travel expenses can be envisaged on a duly justified case by case basis.

Registration is open until 8 May 2015 (13:00 CET)

Summer school webpage with registration form can be found under:  
<http://awareness2015.physics.muni.cz>  
[http://www.iap.fr/opticon/conferences/AW\\_Brno2015.html](http://www.iap.fr/opticon/conferences/AW_Brno2015.html)

awareness2015@physics.muni.cz

Organizing partners:  
Academy of Sciences of Czech Republic  
European Southern Observatory  
IAU  
Masaryk University Brno  
OPTICON



HORIZON-2020

# Lessons learned

- Hands-on experience unique
- Work in small groups essential
- Quality of tutors is the key for success
- Diversity of origins and nationalities favours interactions and future collaborations
- **Regularity!** Nobody should fall through the holes of the net...



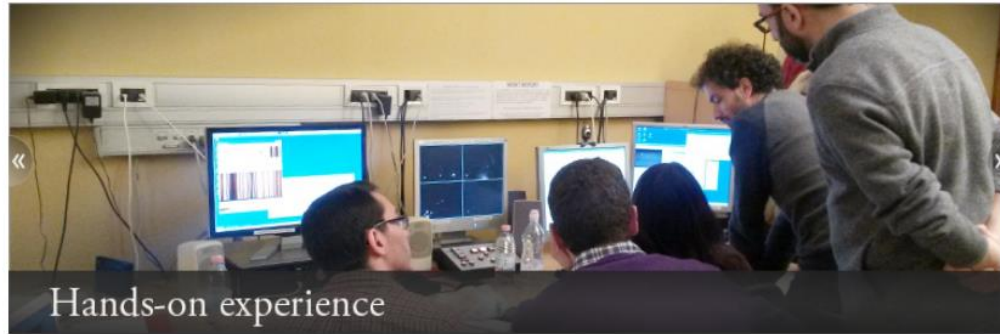
HORIZON-2020



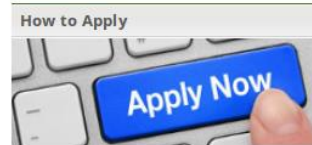


**Opticon Schools - Horizon 2020**

- » Home
- » About
- » Observing Schools
- » Other Schools
- » Contact



OPTICON schools are a community training programme, which delivers expert knowledge in infrastructure use and development, and helps to integrate newer communities. The main programme consists of a yearly NEON Observing school that gives hands-on observing experience to young astronomers at a professional telescope. Additionally, OPTICON organises other schools concentrating on different aspects of observational astronomy, life-long learning, and integrating communities.



[All events](#)



[Opticon-schools.nbi.ku.dk](http://Opticon-schools.nbi.ku.dk)



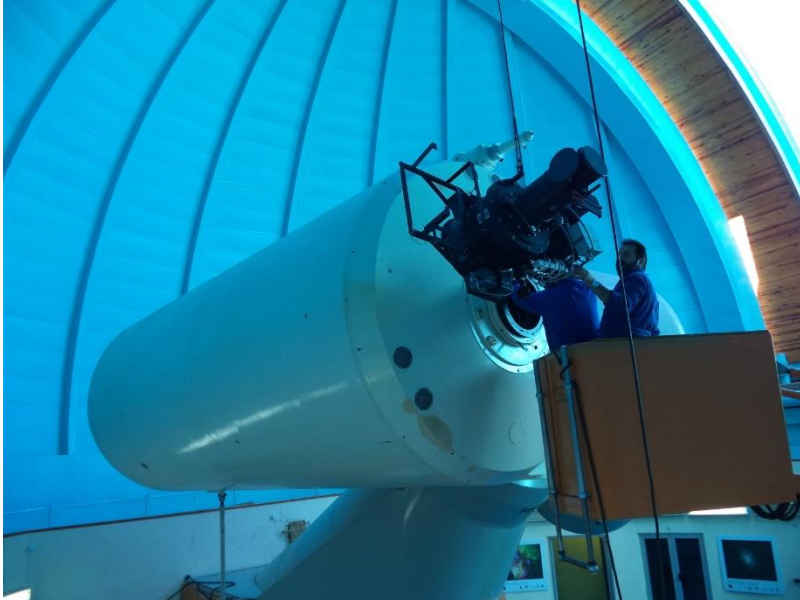


# Summary

Continuing the core programme of NEON schools and “Hot topics in Astrophysics”

## New emphasis for 2017 – 2020

- Time-domain astronomy: instrumentation school focused on time domain, possible projects in observing schools
- Infrared astronomy in observing schools, preparation for JWST & E-ELT
- Multi-wavelength data, combining optical observations e.g. with XMM-Newton, HST, ALMA, ...



HORIZON-2020