Training Schools WP12

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Who are we?

- **WP12 leader:** Heidi Korhonen (Denmark)
- **WP12 board:** Tanyu Bonev (Bulgaria), Michel Dennefeld (France), Roland Gredel (Germany), Petr Kabath (Czech Republic), Elina Lindfors (Finland), Alessandro Pizzella (Italy), and Martin Ward (UK)
- **OPTICON contact:** Gudrun Pebody (UK)
Core activities

Supports different types of schools

• Main school of the year: NEON Observing School

• Organising other events:
  • Life-long training: specialised workshops
  • Archival schools
  • ’Hot Topics‘ conferences
  • Instrumentation oriented schools/workshops

• Developing synergies: joint events with ESO/IAU/other EU projects
NEON Observing Schools

- 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 with a need to obtain it
- Small groups of students led by an experienced tutor
- Hands-on experience combined with expert lectures
- Students present their projects in the end of the school
2017 & 2018 NEON Schools

- **2017 NEON Observing School**
  - On La Palma in September 2017 using the 2.5 metre Nordic Optical Telescope and Isaac Newton Telescope
  - 72 applicants
  - 16 students from 12 different countries and 16 institutes
  - 10 men and 6 women

- **2018 NEON Observing School**
  - In Asiago Observatory in September 2018 using the 1.8m, 1.2m, and 90cm telescopes
  - 65 applicants
  - 20 students from 14 different countries and 20 institutes
  - 14 women and 6 men
  - First participant from the sub-Saharan Africa
What was new in the 2017 and 2018 NEON Observing Schools?

• **Focus on infra-red observations**
  • Lectures on infra-red techniques in all the observing schools
  • Two out of the four groups in the 2017 NEON School also used infra-red observations

• **Multi-messenger astrophysics**
  • One of the focus areas for WP12 in this OPTICON contract
  • In the 2018 NEON School we had
    • a lecture on MAGIC, and
    • remote connection to La Palma to see the observations in practice.
Collaboration with ESO and SUNDIAL

- **2nd ESO/NEON Observing School**
  - February/March 2018
  - 20 students from South America, Europe, and Australia
  - Lectures/group work in Santiago
  - Three nights of observations at La Silla using 3.5 metre NTT and Danish 1.54 metre telescope

- **SUNDIAL Observing School**
  - SUNDIAL is an EU funded Marie Skłodowska-Curie Innovative Training Network
  - Observing school on La Palma in October 2018
  - Two of the highly ranked applicants from the 2018 NEON Observing Schools were chosen for the SUNDIAL School
  - SUNDIAL organised the school and provided the teachers/tutors.
  - OPTICON WP12 paid the costs of the two selected students: French woman and Italian man
Instrumentation School

- The 1st OPTICON Instrumentation School
- July 3-12 2017, in Copenhagen
- Emphasis on ‘Transient Sky’
- Instrument Phase A study with a help of an experienced tutor
- 22 participants selected from 58 applicants (from 13 different countries)
- Eight engineering and 14 astronomy students
- Five women and 17 men
A new polarimeter for the NOT Transient Explorer

Lost
Low-resolution Spectropolarimeter for Transients

Almost
A Low-resolution Multi-Object Spectrograph for Transients
School evaluations

• In the end of each school we ask the students to fill out an evaluation form anonymously
• 80-100% of the students return the evaluations
• The feedback is usually very positive
  • Typically 90-100% of the students say that they would recommend the school to others (we have sometimes 1-2 students who say they would ‘maybe recommend’ the school)
  • 90-95% students also say that they have learned ‘an exceptional amount’ or ‘a great deal’
  • Praise organisation, lectures, group work, organisation…
• Some offer ideas on how to improve
• Basically every time we have one person who is not as happy with the school as the others
  • Usually too experienced for the school
  • The core of the school is group work with tutors, and some groups work better than others

We have to be careful in student and tutor selection
WP12 plans 2019 – 2020

• Yearly NEON Observing Schools
  • 2019: September in Rozhen Observatory, Bulgaria
  • 2020: Location TBD (Spain, France, Greece, ...?)

• At least one other event every year:
  • Proposal writing school in June 2019 in Tatranská Lomnica, Slovak Republic (jointly organised with an ERASMUS+ project)
  • ‘Hot Topics’ conference in Sofia combined with the 2019 NEON Observing School
  • Multi-messenger Astrophysics School in 2020
  • Archival School at ESO? 2nd Instrumentation School?
# Plans vs budget

<table>
<thead>
<tr>
<th>School</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
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<tbody>
<tr>
<td>NEON</td>
<td>57kEUR</td>
<td>40kEUR</td>
<td>30kEUR</td>
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<td>ESO/NEON</td>
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<td>12kEUR</td>
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<td>Instrumentation</td>
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<td>SUNDIAL</td>
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<td>3kEUR</td>
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<td>'Hot Topics‘</td>
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<td>10kEUR</td>
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<tr>
<td>Proposal writing</td>
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<tr>
<td>Archival School</td>
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<td>10kEUR?</td>
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<td>Multi-messenger</td>
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<tr>
<td>WP12 Board + Other</td>
<td>4kEUR</td>
<td>6kEUR</td>
<td>5kEUR</td>
<td>6kEUR</td>
</tr>
</tbody>
</table>

| In total                  | 82kEUR  | 61kEUR  | 57kEUR  | 66kEUR   |

In total 266kEUR (budget 266kEUR)
Diversity

NEON Observing Schools 2000 – 2018: 296 students, 148 men and 148 women

Home institute

Nationality

Country of the home institute (3 students or more)

Country of origin (3 students or more)
We have taken a detailed look at the students who took part in the first 10 NEON Observing Schools (2000-2012) and the three Archival Schools (2002, 2006, and 2008).

- The NEON schools had 181 students: 93 women and 88 men
- 115 of the NEON School participants are still in astronomy (64%)
- The Archival Schools had 59 participants: 29 women and 30 men
- 49 of the Archival School participants are still in astronomy (83%)