UAK Research school 2024: Espegrend marine biological station 10-14 June

**Program**

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| **Monday - June 10th** |
| **Joint Acoustics and Optics: Lecture Room** |
| 0830-1000 | Meet at Espegrend. Move into rooms. |
| 1000-1030 | Arne: Welcome, practicalities, introduction of instructors and students |
| 1030-1115 | Peter Worcester (SIO): Underwater Acoustics Overview Lecture |
| 1115-1200 | Daniel and Arne: Optics Overview Lecture |
| 1200-1300 | LUNCH |
| 1300-1345 | Torunn Sagen (UiB): Fjord oceanography Lecture |
| 1345-1430 | Espen Storheim: Lecture/practical exercise: Safety, ropes and knots.  |
| 1430-1500 | Peter Worcester: Lecture/practical work: O-rings and connectors |

**After 1500 Optics and Acoustics separate**

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| **Tuesday - June 11th** |
| **Optics** | **Acoustics** |
|  |  | Until 0825 | BreakfastTidy roomsClean common areas. |
| 0830 | Meet to start loading boat | 0825 | Meet in lecture room. |
| 0900-1200 | Measurements from the boat, station A and B\* (time permitting): - Secchi depth- Ramses surface- ACS profile and surface- RBR CTD+tridente, and LISST-200X profile, profile and surface- Water samples: 15L from surface at both locations | 0830-1200 | Data processing and preparations:- Plot sound speed profiles and make ray predictions. - Plan locations and depths for the active source transmissions.- Prepare and stage equipment for fieldwork. |
| 1200-1300 | LUNCH | 1200-1300 | LUNCH |
| 1300-1800 | Labwork:- Filteration and water sample procedures- Chl-a and SPM measurements | 1300-1600 | Fieldwork: - Take CTD's- Deploy acoustic recorder and instrument array. |
|  |  | 1600-1800 | Rinse equipment, offload data, charge batteries, and secure metadata. |

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| **Wednesday - June 12th** |
| **Optics** | **Acoustics** |
|  |  | Until 0825 | BreakfastTidy roomsClean common areas. |
| 0830 | Meet to start loading boat | 0825 | Meet in lecture room. |
| 0900-1200 | **Group A:** Measurements from the boat, station A and C- Secchi depth- Ramses surface- ACS profile and surface- RBR CTD+tridente, and LISST-200X profile, profile and surface- Water samples: 15L from surface at both locations**Group B:** Data processing | 0830-0915 | Lecture: Espen Storheim - Practical introduction to data management |
|  |  | 0930-1200 | Data processing and preparations:- Prepare acoustic sources for transmissions.- Prepare and stage equipment for fieldwork. |
| 1200-1300 | LUNCH | 1200-1300 | LUNCH |
| 1300-1800 | Group A: FiltrationGroup B: Radiative transfer modelling | 1300-1600 | Fieldwork: - Transmit source signals at planned locations. - Recover recorders |
|  |  | 1600-1800 | Rinse equipment, offload data, charge batteries, and secure metadata. |

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| **Thursday - June 13th** |
| **Optics** | **Acoustics** |
|  |  | Until 0825 | BreakfastTidy roomsClean common areas. |
| 0830 | Meet to start loading boat | 0825 | Meet in lecture room |
| 0900-1200 | **Group B:** Measurements from the boat, station A and C- Secchi depth- Ramses surface- ACS profile and surface- RBR CTD+tridente, and LISST-200X profile, profile and surface- Water samples: 15L from surface at both locations**Group A:** Data processing | 0830-1200 | Data processing and preparations:- Process acoustic data.- Plot spectrograms of active and passive recordings.- Prepare and stage equipment for fieldwork. |
| 1200-1300 | LUNCH | 1200-1300 | LUNCH |
| 1300-1800 | Group B: FiltrationGroup A: Radiative transfer modelling | 1300-1600 | Fieldwork:- Take CTD's- Additional source transmissions- Transmission of custom sound signals |
|  |  | 1600-1800 | Rinse equipment, offload data, charge batteries, and secure metadata. |

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| **Friday - June 14th** |
|  | **Joint Acousitcs and Optics: Lecture Room** |
| Until 0825 | BreakfastTidy roomsClean common areas. |
| 0825 | Meet in lecture room |
| 0830-1200 | Students work on preparing presentations/Instructors pack instruments and equipment |
| 1200-1300 | LUNCH |
| 1300-1330 | Student Presentations: Optics Group A |
| 1330-1400 | Student Presentations: Active Acoustics |
| 1400-1430 | Student Presentations: Optics Group B |
| 1430-1500 | Student Presentations: Passive Acoustics |
| 1500-1530 | Audiovisual competition |
| 1530 | Closing remarks and summary |
| 1600-1700 | Clean rooms and common areas. Move out. |