**IceCube Institutional Memorandum Of Understanding (MOU)**

**Scope of Work**

**Uppsala University**

**Olga Botner**

**Ph.D Scientists** (Faculty Scientist/Post Doc Grads): **5** (4 1 2)

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Labor Cat.** | **Names** | **WBS L3** | **Tasks** | **WBS 2.1** | **WBS 2.2** | **WBS 2.3** | **WBS 2.4** | **WBS 2.5** | **WBS 2.6** | **Grand Total** |
| Program Coordination | Detector Maintenance & Operations | Computing & Data Management  | Data Processing & Simulation  | Software | Calibration |
| KE | BOTNER, OLGA  | Administration | Outreach | 0.05 |   |   |   |   |  | 0.05 |
|   |  |  | ExecCom Member | 0.20 |  |  |  |  |  | 0.20 |
|   | **BOTNER, OLGA Total** |  | **0.25** |  |  |  |  |  | **0.25** |
|   | de los HEROS, CARLOS | Online Filter (Pnf) | TFT Board member |   | 0.10 |   |  |  |  | 0.10 |
|   | Administration | Outreach |  0.05 |  |   |  |  |  | 0.05 |
|   | **de los HEROS, CARLOS Total** |  | **0.05** | **0.10** |  |  |  |  | **0.15** |
|   | HALLGREN, ALLAN  | Education & Outreach | Outreach | 0.05 |   |   |  |  |  | 0.05 |
|  | Detector Calibration | Calibration WG co-chair |  |  |  |  |  | 0.15 | 0.15 |
|   | **HALLGREN, ALLAN Total** |  | **0.05** |  |  |  |  | **0.15** | **0.20** |
|  | O´SULLIVAN,ERIN | Education & Outreach | Outreach | 0.05 |  |  |  |  |  | 0.05 |
| Supernova System | Supernova WG co-chair |  | 0.15 |  |  |  |  | 0.15 |
|  | **O´SULLIVAN, ERIN Total** | **0.05** | **0.15** |  |  |  |  | **0.20** |
| PO | SHARMA, ANKUR | Real-time alerts | Development and automatization of alternative angular uncertainty measures for alert events |  | 0.20 |  |  |  |  | 0.20 |
|  | **SHARMA, ANKUR Total**  |  | **0.20** |  |  |  |  | **0.20** |
| GR | BURGMAN, ALEXANDER | Detector Monitoring | Monitoring Shifts |   | 0.03 |  |  |  |  | 0.03 |
|  | VALTONEN-MATTILA, NORA | Detector Monitoring | Monitoring Shifts |   | 0.03 |  |  |  |  | 0.03 |
|  |  | Supernova System | Responsibility for the hitspool data |  | 0.10 |  |  |  |  | 0.10 |
|   | **GR Total** |  |  | **0.16** |  |  |  |  | **0.06** |
| **UU Total** |  |  | **0.40** | **0.61** |  |  |  | **0.15** | **1.16** |

**Faculty:**

Olga Botner – Institution lead, ExecCom, Outreach, Mentoring students

Allan Hallgren – Emeritus, ICB, Co-lead of Calibration WG, Outreach, Mentoring students

Carlos de los Heros – ICB, TFT board member, Outreach, Mentoring students

Erin O’Sullivan – Co-lead of Supernova WG, Outreach, Mentoring students

Christian Glaser – Radio R&D for IceCube-Gen2, Outreach, Mentoring students

**Post Docs:**

 Ankur Sharma Analysis topic: High-energy neutrinos correlated with X-ray emission
 Service work: Real-time alert system

**Ph.D. Students:**

Alexander Burgman: Thesis/analysis topic: Magnetic Monopoles

Nora Valtonen-Mattila: Thesis/analysis topic: High-energy neutrinos from supernovae

 Service work: SN operations

**Diploma/Master Students: TBD**

**General:**

IceCube can access Swedish GRID resources for IceCube activities.