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

**Scope of Work**

**Uppsala University**

**Olga Botner**

**Ph.D Scientists** (Faculty Scientist/Post Doc Grads): **5** (3 2 3)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Labor Cat.** | **Names** | **WBS L3** | **Tasks** | **WBS 2.1** | **WBS 2.2** | **WBS 2.3** | **WBS 2.4** | **WBS 2.5** | **Grand Total** |
| Program Management | Detector Maintenance & Operations | Computing & Data Management | Triggering & Filtering | Data Quality, Reconstruction & Simulation Tools |
| KE | BOTNER, OLGA  | Administration | Outreach | 0.05 |   |   |   |   | 0.05 |
|   |  |  | Spokesperson | 0.30 |  |  |  |  | 0.30 |
|   |  |  | ExecCom Member | 0.20 |  |  |  |  | 0.20 |
|   | **BOTNER, OLGA Total** |  | **0.55** |  |  |  |  | **0.55** |
|   | de los HEROS, CARLOS | Physics Filters | WIMP WG Lead |   |   |   | 0.25 |  | 0.25 |
|   |  | TFT Coordination | TFT Board member |   |   |   | 0.10 |  | 0.10 |
|   | Administration | Pubcom member |  0.10 |   |   |  |  | 0.10 |
|   | **de los HEROS, CARLOS Total** |  | **0.10** |  |  | **0.35** |  | **0.45** |
|   | HALLGREN, ALLAN  | Administration | Outreach | 0.05 |   |   |  |  | 0.05 |
|   |  | Speakers Comm member | 0.10 |  |  |  |  | 0.10 |
|   | TFT Coordination | TFT Chair  |  |  |  | 0.25 |  | 0.25 |
|   | **HALLGREN, ALLAN Total** |  | **0.15** |  |  | **0.25** |  | **0.40** |
| SC | BOERSMA, DAVID | Reconstruction/ Analysis Tools | Reconstruction Coordinator |  |  |  |  | 0.20 | 0.20 |
|  |  | Core Software  | Maintain Reconstruction Framework |  |  | 0.10 |  |  | 0.10 |
|  |  | Physics Filters  | Maintain Moon shadow and Galactic center filters |  |  |  | 0.05 |  | 0.05 |
|  | Computing Resources | Work on computing resources |  |  | 0.25 |  |  | 0.25 |
|   | **BOERSMA, DAVID Total** |  |  |  | **0.35** | **0.05** | **0.20** | **0.60** |
| GR | HENRIC TAAVOLA | Detector Monitoring | Monitoring shifts  |   |   0.03 |  |  |  | 0.03 |
|  | RICKARD STRÖM | Detector Monitoring, | Monitoring Shifts |   | 0.03 |  |  |  | 0.03 |
|  | LISA UNGER | Detector Monitoring | Tools development |   | 0.10 |  |  |  | 0.10 |
|   | **GR Total** |  |  | **0.16** |  |  |  | **0.16** |
| **UU Total** |  |  | **0.80** | **0.16** | **0.35** | **0.65** | **0.20** | **2.16** |

**Faculty:**

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

Allan Hallgren – SpeakersCom, ICB, TFT Chair, Outreach, Mentoring students

Carlos de los Heros – WIMP-wg lead, TFT board member, PubComm member

**Scientists and Postdocs:**

David Boersma – Reconstruction Coordinator, develop Moon shadow and Galactic center filters

 Computing resources

 Analysis topics: Galactic center, Moon shadow

Sebastian Euler – service tasks TBD

 Analysis topics: Simulations for surface veto and high energy extension

**Ph.D. Students:**

Henric Taavola – Thesis/analysis topics: Galactic center, low energy cascades

Strom Rickard – Thesis/analysis topics: Full sky starting

Lisa Unger – Monitoring software development

 Thesis: TBD

**Diploma/Master Students:**

**General:**

The Uppsala group uses Swedish GRID resources for IceCube activities; this usage could be extended.