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

**Scope of Work**

**University of Gent**

**Dirk Ryckbosch**

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

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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 |
| SC | UGENT SC | Engineering and R&D Support | Acoustic R&D Support | 0.05 |   |   |   |   |  | 0.05 |
|   | **UGENT SC Total** |  | **0.05** |  |  |  |  |  | **0.05** |
| GR | Stef Verpoest | Detector Monitoring | Detector Monitoring |   | 0.03 |   |   |   |  | 0.03 |
|  |  | Offline Data Processing | Cosmic Ray L3 scripts |  |  |  | 0.50 |  |  | 0.50 |
|  |  | Offline Data Processing | Pass2 verification |  |  |  | 0.05 |  |  | 0.05 |
|  |  | Simulation Software | Investigations of thinning in simulation |  |  |  |  | 0.05 |  | 0.05 |
|   | **UGENT GR Total** |  |  | **0.03** |  | **0.55** | **0.05** |  | **0.63** |
| **UGENT Total** |  |  | **0.05** | **0.03** |  | **0.55** | **0.05** |  | **0.68** |

**Faculty:**

Dirk Ryckbosch Institutional lead

**Scientists and Post Docs:**

Alessio Porcelli IceTop simulations, IceTop reconstructions;

 Surface scintillators analysis

 Analysis topics: Cosmic ray energy spectrum and composition

**Ph.D. Students:**

Matthias Vraeghe Thesis/Analysis topics: Tau-neutrinos: double-bang events

 Analysis finished, needs to finalize thesis manuscript

Sam De Ridder Thesis/Analysis topics: Cosmic ray energy spectrum and composition; 3-year analysis; inclined showers

 Analysis finished, needs to finalize thesis manuscript

Sander Vanheule Thesis/Analysis topics: PINGU detector development

 Analysis finished, needs to finalize thesis manuscript

Ward Van Driessche Thesis/Analysis topics: BSM search for exotic non-standard charged particles

Stef Verpoest IceTop simulations, IceTop reconstructions

 Thesis/Analysis topics: Cosmic ray composition; hadronic interactions

**Diploma/Master Students:**

Bob Oeyen Analysis topics: Hadronic interaction models in CORSICA