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

**Scope of Work**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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 | Van Eijndhoven Nick | Reconstruction Tools | development of reconstruction tools (IcePack framework), |   |   |   |   |  0.25 | 0.25 |
| Data Quality | data quality verification |   |   |   |   | 0.25 | 0.25 |
| **Van Eijndhoven Nick total** |  |  |  |  |  | **0.50** | **0.50** |
| De Clercq Catherine | administration | Exec Comm member | 0.20 |   |   |   |   | 0.20 |
| **De Clercq Catherine total** |  | **0.20** |  |  |  |  | **0.20** |
| PO | Bose Debanjan | Reconstruction Tools | muon track reconstruction in IceCube and DeepCore, waveform feature extractor |   |   |   |   | 0.25 | 0.25 |
|   | Data Quality | verification Deep Core data quality |   |   |   |   | 0.25 | 0.25 |
|   | **Bose Debanjan Total** |  |  |  |  |  | **0.50** | **0.50** |
|   | Labare Mathieu | Physics Filters | Filter for Southern sky muons |   |   |   | 0.25 |   | 0.25 |
|   | Reconstruction Tools | muon track reconstruction in IceCube and DeepCore |   |   |   |   | 0.125 | 0.125 |
|   | Data Quality | verification Deep Core data quality |   |   |   |   | 0.125 | 0.125 |
|   | **Labare Mathieu Total** |  |  |  |  | **0.25** | **0.25** | **0.50** |
|   | Miller, Jonathan | Simulation Production | Ice properties and flasher runs |   |   | 0.125 |   |  | 0.125 |
|   | Data Quality | WIMP analysis |   |   |   |   | 0.375 | 0.375 |
|   | **Miller, Jonathan Total** |  |  |  | **0.125** |  | **0.375** | **0.50** |
|   | Golup, Geraldina  | Reconstruction tools | Muon track reconstruction for IceCube and DeepCore |   |   |  |   | 0.25  | 0.25 |
|   | Data Quality | GRB analysis |   |   |   |   | 0.25 | 0.25 |
|   | **Golup, Geraldina Total** |  |  |  |  |  | **0.50** | **0.50** |
|   | VUB PO | Detector Monitoring | Detector Monitoring |   | 0.06 |   |   |   | 0.06 |
|   | **VUB PO Total** |  |  | **0.06** |  |  |  | **0.06** |
| GR | Casier Martin  | Reconstruction Tools | muon track reconstruction in IceCube and DeepCore |   |   |   |   | 0.50 | 0.50 |
|   | **Casier Martin total** |  |  |  |  |  | **0.50** | **0.50** |
|   | Brayeur Lionel  | Reconstruction Tools | muon track reconstruction in IceCube and DeepCore |   |   |   |   | 0.50 | 0.50 |
|   | **Brayeur Lionel total** |  |  |  |  |  | **0.50** | **0.50** |
|   | Kunnen Jan  | Physics Filters | Filter for Southern sky muons |   |   |   | 0.50 |   | 0.50 |
|   | **Kunnen Jan total** |  |  |  |  | **0.50** |  | **0.50** |
|   | VUB GR | Detector Monitoring | Detector Monitoring |   | 0.06 |   |   |   | 0.06 |
|   | **VUB GR Total** |  |  | **0.06** |  |  |  | **0.06** |
| **VUB Total** |  |  | **0.20** | **0.12** | **0.125** | **0.75** | **3.125** | **4.32** |

**Vrije Universiteit Brussel**

**Catherine de Clercq**

**Ph.D Scientists** (Faculty Scientist/Post Doc Grads): **6** (2 4 3)

**Faculty:**

Catherine de Clercq member of Executive Committee

Nick Van Eijndhoven Development of reconstruction tools (IcePack framework) - data quality verification

**Scientists/post-docs:**

Golup Geraldina muon track reconstruction for IceCube and DeepCore - verification IceCube and DeepCore data quality

GRB/AGN analysis

Debanjan Bose muon track reconstruction in IceCube and DeepCore -, waveform feature extractor – verification DeepCore data quality

GRB/AGN analysis

Mathieu Labare filter for Southern sky muons. DeepCore data quality verification - muon track reconstruction for IceCube and DeepCore

GRB/AGN analysis

Jonathan Miller Ice properties and flasher runs, WIMP analysis

**Students:**

Jan Kunnen Filter for Southern hemisphere signals

 WIMP analysis

Lionel Brayeur Muon track reconstruction in IceCube and DeepCore

 GRB analysis

Martin Casier Muon track reconstruction in IceCube and DeepCore

 GRB analysis