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

**Scope of Work**

**University of Münster**

**Alexander Kappes**

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

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Labor Cat.** | **Names** | **WBS Level 3** | **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 | KAPPES, Alexander | 2.1.1 Administration | Institutional lead | 0.20 |   |   |   |   |  | 0.20 |
|   | **KAPPES, Alexander, Total** |  | **0.20** |  |  |  |  |  | **0.20** |
| PD | CLASSEN, Lew | 2.1.4 Education & Outreach  | Public outreach |   0.10 |  |   |   |  |  | 0.10 |
|   | **CLASSEN, Lew Total** |  | **0.10** |  |  |  |  |  | **0.10** |
| GR | UNLAND, Martin | 2.6.1 Detector Calibration | Background from radioactive decays in DOM pressure vessel |  |  |   |   |  |   0.20 | 0.20 |
|   | **UNLAND, Martin Total** |  |  |  |  |  |  | **0.20** | **0.20** |
| **University Münster Total**  |  | **0.30** |  |  |  |  | **0.20** | **0.50** |

**Faculty:**

Alexander Kappes (Faculty) – Institutional Lead

**Scientists and Post Docs:**

Lew Classen (Post Doc) – mDOM development

**Grad Students (PhD students):**

Cristian Lozano (PhD student) – Thesis topic: Sensitivity studies of IceCube-Gen2 detector with mDOMs

Martin Unland (PhD student) – Thesis topic: mDOM development and detailed module characterization

**Master students:**

Daniel Guderian –Thesis topic: Studies on reconstruction performance of ToT readout with IceCube events

Florian Trittmaack – Thesis topic: Investigation of PMT dark rates

Ralf Herrlich – Thesis topic: Position calibration of mDOMs with flasher LEDs

Juan Bernal – Thesis topic: Orientation calibration of mDOMs with light sources

Florian Sprenger – Thesis topic: Energy reconstruction of MeV SN neutrinos with mDOMs

Tabea Eder – Thesis topic: in-situ time calibration of PMTs in the mDOM