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

**Scope of Work**

**Friedrich-Alexander-Universität Erlangen-Nürnberg**

**Erlangen Centre for Astroparticle Physics**

**Alexander Kappes**

**Ph.D Scientists** (Faculty Scientist/Post Doc Grads): **1** (1 0 4)

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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 | KAPPES, ALEXANDER | Administration | PubComm Member |  0.10 |   |   |   |  | 0.10 |
|   | **KAPPES, ALEXANDER Total** |  | **0.10** |  |  |  |  | **0.10** |
| GR | Altmann, David  | Reconstruction/ Analysis tools | Track reconstruction |  |  |  |  | 0.10 | 0.10 |
|  | **Altmann, David Total**  |  |  |  |  |  | **0.10** | **0.10** |
|  | CLASSEN, LEW | Simulation Programs  | multi-PMT DOM development and simulations |  |  |  |  | 0.05 | 0.05 |
|  | **CLASSEN, LEW Total**  |  |  |  |  |  | **0.05** | **0.05** |
|  | TSELENGEDOU, MARIA | Simulation Programs  | Simulation verification |  |  |  |  |  0.20 | 0.20 |
|  | **TSELENGEDOU, MARIA Total** |  |  |  |  |  |  **0.20** |  **0.20** |
|  | Thomas KITTLER | Simulation Programs  | Simulation verification, reconstruction development |  |  |  |  | 0.40 | 0.40 |
|  | **KITTLER, THOMAS Total** |  |  |  |  |  |  **0.40** |  **0.40** |
| **Erlangen Total** |  |  | **0.10** |  |  |  |  **0.75** | **0.85** |

**Faculty:**

Alexander Kappes – Institutional Lead, Pubcom Member

**Scientists and Post Docs:**

 **Ph.D. Students:**

Lew Classen – work includes contributions to verification of IceCube simulation

Thesis/Analysis topics: Simulations and hardware development for multi-PMT DOM prototype

David Altmann – reconstruction improvement and method development for IceCube

Thesis/Analysis topics: search for point sources in the southern sky with IceCube

Maria Tselengidou – work includes verification of IceCube simulation software

Thesis/Analysis topics: Proton-decay studies for detector with multi-PMT DOMs

Thomas Kittler – work includes verification of IceCube simulation software and reconstruction development

Thesis/Analysis topics: performance studies for high-energy detector with multi-PMT DOMs

**Diploma/Master students:**

Sebastian Fiedlschuster - hole ice implementation into IceCube simulation software