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

**Scope of Work**

**Ohio State University**

**James Beatty**

**Ph.D Scientists** (Faculty Scientist/Post Doc Grads): **4** (1 3 0)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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 |
| PO | OSU PO | Detector Monitoring | Monitoring shifts |  | 0.02 |  |  |  | 0.02 |
|  |  | Education & Outreach | Outreach | 0.05 |  |  |  |  | 0.05 |
|  | **OSU PO Total** | |  | **0.05** | **0.02** |  |  |  | **0.07** |
|  | ROTT, CARSTEN | Physics Filters | WIMP WG Co-Lead |  |  |  | 0.25 |  | 0.25 |
|  |  | Detector Monitoring | Maintain good run list |  | 0.10 |  |  |  | 0.10 |
|  | **ROTT, CARSTEN Total** | |  |  | **0.10** |  | **0.25** |  | **0.35** |
|  | PFENDNER, CARL | Detector Monitoring | Maintain good run list |  | 0.10 |  |  |  | 0.10 |
|  |
|  | **PFENDNER, CARL Total** | |  |  | **0.10** |  |  |  | **0.10** |
| **OSU Total** | |  |  | **0.05** | **0.22** |  | **0.25** |  | **0.52** |

**Faculty:**

Jim Beatty – 10% IceCube

**Scientists and Post Docs:**

Carsten Rott – WIMP-wg co-lead, Good Run List, data quality, outreach. Currently in transition into a faculty position at Sungkyunkwan University (SKKU) in Korea.

Carl Pfendner - Good Run List, data quality

Mike Stamatikos – GRB analysis tools, outreach – 10% IceCube (Swift, Fermi, ISS)

**Students:**

**General:**

Procedures and descriptions for the IceCube good run list have been developed by C.Rott. We are maintaining the good run list and perform associated long-term data-quality and stability tasks. We support integration of the good run list into i3live (C. Pfendner). We develop science analysis tools for correlated neutrino searches based upon electromagnetic parameters for each burst (M. Stamatikos).

Our analysis efforts are focused on Dark Matter searches and ultra-high energy neutrinos.

We use the Ohio Supercomputer Center (OSC) for data processing and to production of Monte Carlo event samples.

**Note:** The activities and staffing levels in this MoU are appropriate for the year beginning October 1, 2012.