IceCube Institutional Memorandum Of Understanding (MOU)

Scope of Work

DPNC Geneva

Teresa Montaruli

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

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |
| KE | **MONTARULI, TERESA** | WBS 2.1.1 Administration | | ICB member  UHECR’neutrino coordinator | | 0.15 |  |  |  | |  |  | 0.15 |
|  | WBS 2.5.3 Education & Outreach | | Responsible of Analysis Output of the group, Advising of students | | 0.10 |  |  |  | |  |  | 0.10 |
|  | MONTARULI, TERESA Total | | | | | 0.25 |  |  |  | |  |  | 0.25 |
|  |  | WBS 2.5.3 Reconstruction and analysis software | | online filter quality and monthly data analysis  UHECR – neutrino analysis | |  |  |  |  | | 0.25 |  | 0.25 |
| AL SAMARAI IMEN Total | | | | |  |  |  |  | | 0.25 |  | 0.25 |
|  |  |  | |  | |  |  |  |  | |  |  |  |
|  | **STEPHANIE BRON** | WBS 2.2.4 Detector monitoring | | Detector monitoring | |  | 0.05 |  |  | |  |  | 0.05 |
|  | WBS 2.5.3 Reconstruction & analysis software | | L3Muon filter and reconstruction for muon diffuse searches  Monthly time dependent search | |  |  |  |  | | 0.75 |  | 0.75 |
|  | STEPHANIE BRON Total | | | | |  | 0.05 |  |  | | 0.75 |  | 0.80 |
|  | TESSA CARVER | | Detector monitoring | | Detector monitoring |  | 0.05 |  | |  |  |  | 0.05 | |
| WBS 2.1.4 Education & Outreach | | Education & Outreach | 0.05 |  |  | |  |  |  | 0.05 | |
| WBS 2.5.3 Reconstruction  WBS 2.4.2 Simulation production | | Final filter for point sources  Simulation production verification |  |  |  | | 0.10 | 0.40 |  | 0.40  0.10 | |
|  | TESSA CARVER Total | | | | | **0.05** | **0.05** |  | **0.10** | | **0.40** |  | **0.60** |
| DPNC Total DPNC Total | | | | | | 0.30 | 0.10 |  | 0.10 | | 1.40 |  | 1.90 |

**Faculty:**

Teresa Montaruli – collaboration board, coordination the UHECR-neutrino working group, supervising DPNC analysis

**Scientists and Post Docs:**

Imen Al Samarai - Postdoc, supervising of students, neutrino flux update. UHECR-HESE analysis

**Ph.D. Students:**

Thesis/analysis topics: Searches for cosmic neutrinos in coincidence with UHECRs and online analysis of AGN flares with IceCube.

Tessa Carver- Monitoring shifts, PS L3-L4, PSLab SkyLab comparison. Started in Aug. 2015.

Thesis/analysis topics: Point-source searches with multiple years of IceCube data and time dependent searches.

Stephanie Bron: Monitoring shifts, PS-diffuse L4 comparison. Energy and track reconstruction. Started in April 2016. Thesis/analysis topics: Time dependent point-source searches.

Asen Christov defended his Thesis on Nov. 1, 2016.

**Diploma/Master Students:** -