

**IceCube Neutrino Observatory**  
**F. Halzen – PI**  
**K. Hanson – Director of Operations**  
**A. Karle – Assoc Director for Science and Instrumentation**  
**J. Madsen – Assoc. Director for Education and Outreach**

**WBS 2.1**  
**Program Coordination**  
**(C. Vakhnina)**

- WBS 2.1.1 Administration
- WBS 2.1.2 Engineering and R&D Support
- WBS 2.1.3 USAP Support and Safety
- WBS 2.1.4 Education & Outreach
- WBS 2.1.5 Communications

**WBS 2.2**  
**Detector Operations & Maintenance (Online)**  
**(J. Kelley)**

- WBS 2.2.1 Run Coordination
- WBS 2.2.2 Data Acquisition
- WBS 2.2.3 Online Filter (PnF)
- WBS 2.2.4 Detector Monitoring
- WBS 2.2.5 Experiment Control
- WBS 2.2.6 Surface Detectors
- WBS 2.2.7 Supernova System
- WBS 2.2.8 Real-time Alerts

**WBS 2.3**  
**Computing & Data Management Services**  
**(B. Riedel)**

- WBS 2.3.1 Data Storage & Transfer
- WBS 2.3.2 Core Data Center Infrastructure
- WBS 2.3.3 Central Computing Resources
- WBS 2.3.4 Distributed Computing Resources
- WBS 2.3.5 SPS
- WBS 2.3.6 SPTS

**WBS 2.4**  
**Data Processing & Simulation Services**  
**(J. C. Diaz-Velez)**

- WBS 2.4.1 Offline Data Production
- WBS 2.4.2 Simulation Production
- WBS 2.4.3 Public Data Products

**WBS 2.5**  
**Software**  
**(A. Olivas)**

- WBS 2.5.1 Core Software
- WBS 2.5.2 Simulation Software
- WBS 2.5.3 Reconstruction
- WBS 2.5.4 Science Support Tools
- WBS 2.5.5 Software Development Infrastructure

**WBS 2.6**  
**Calibration**  
**(S. Blot)**

- WBS 2.6.1 Detector Calibration
- WBS 2.6.2 Ice Properties