IceCube M&O MoU SOW Summary v20.0 2016.0415.xlsx
Authors Contribution

v 20.0, April 15, 2016	Authors Head Count				IceCube Authors: M&O Responsibilities (FTE)					
Institution (Lead)	Ph.D. Authors	Faculty	Scientists / Post Docs	Ph.D. Students	WBS 2.1 Program Management	WBS 2.2 Detector Operations & Maintenance	WBS 2.3 Computing & Data Management	WBS 2.4 Triggering & Filtering	WBS 2.5 Data Quality, Reconstruction & Simulation Tools	Total
University of Alabama (Dawn Williams)	2	(2	0	1)		0.20	0.00	0.35	0.20	0.75
University of Alaska (Katherine Rawlins)	1	(1	0	0)				0.20	0.20	0.40
Clark Atlanta (George Japaridze)	1	(1	0	0)		0.02				0.02
Drexel University (Naoko Kurahashi Neilson)	2	(1	1	2)	0.05	0.06	0.55	0.50	0.30	1.46
Georgia Tech (Ignacio Taboada)	1	(1	0	1)		0.23		0.25		0.48
LBNL (Spencer Klein)	5	(3	2	3)	0.13	0.24	0.53		0.15	1.05
Marquette University (Karen Andeen)	2	(1	1	0)	0.30	0.30	0.30		0.10	1.00
Massachusetts Institute of Technology (Janet Conrad)	3	(1	2	2)	0.10	0.10			1.45	1.65
Michigan State University (Tyce DeYoung)	5	(2	3	2)	0.35	0.48	0.41		1.16	2.40
Ohio State University (James Beatty)	4	(1	3	0)		0.35	0.10		0.05	0.50
Pennsylvania State University (Doug Cowen)	4	(1	3	3)	0.40	0.82	0.33	0.00	1.12	2.67
South Dakota School (Xinhua Bai)	1	(1	0	1)	0.05	0.05			1.10	1.20
Southern University (Ali Fazely)	3	(2	1	0)		0.02	0.30		0.60	0.92
Stony Brook University (Joanna Kiryluk)	1	(1	0	2)	0.05	0.05		0.50	0.30	0.90
University of California, Berkeley (Buford Price)	3	(1	2	0)	0.40	0.27		0.25	0.38	1.30
University of California, Irvine (Steve Barwick)	1	(1	0	1)		0.02				0.02
University of Delaware (Tom Gaisser)	7	(4	3	2)	0.50	0.80		0.20	0.95	2.45
University of Kansas (Dave Besson)	1	(1	0	0)	0.10	0.02				0.12
University of Maryland (Greg Sullivan)	6	(3	3	4)	1.20	0.96	1.63	0.40	0.73	4.91
University of Rochester (Segev BenZvi)	1	(1	0	1)		0.35			0.50	0.85
University of Wisconsin, River Falls (Jim Madsen)	3	(3	0	0)	0.60	0.20			0.10	0.90
University of Wisconsin, Madison (Albrecht Karle)	20	(6	14	12)	2.23	4.70	1.40	0.30	1.80	10.43
Yale University (Reina Maruyama)	1	(1	0	1)	0.05	0.05			0.10	0.20
U.S. Institutions Subtotal	78	(40	38	38)	6.51	10.28	5.55	2.95	11.29	36.57
DESY-Zeuthen (Marek Kowalski)	8	(6	2	10)	0.60	0.17	1.65	0.35	1.25	4.02
RWTH Aachen (Christopher Wiebusch)	2	(1	1	9)	0.30	1.07	0.70	0.20	1.05	3.32
Universität Dortmund (Wolfgang Rhode)	2	(1	1	6)		0.03	0.55	0.80	1.00	2.38
Universität Mainz (Lutz Köpke)	3	(2	1	8)	0.50	0.75	0.30	0.50	0.20	2.25
Universität Wuppertal (Klaus Helbing)	2	(1	1	7)	0.10	0.50	0.20	0.45	0.60	1.85
Humboldt Universität Berlin (Marek Kowalski)	1	(1	0	5)	0.10			0.20	0.05	0.35
Universität Bochum (Julia Tjus)	2	(1	1	3)		0.03		0.10	0.20	0.33
Technische Universität München (Elisa Resconi)	2	(1	1	3)		0.05			0.60	0.65
Universite Libre de Bruxelles (Juan Antonio Aguilar Sanchez)	3	(1	2	3)	0.10	0.62	0.45	0.45	0.50	2.12
Universite de Mons (Evelyne Daubie)	1	(0	1	0)		0.10	0.55			0.65
University of Gent (Dirk Ryckbosch)	2	(1	1	4)	0.10	0.03			0.40	0.53
Vrije Universiteit Brussel (Catherine de Clercq)	5	(2	3	2)	0.20	0.12	0.25	0.50	2.25	3.32
Stockholm University (Klas Hultqvist)	5	(4	1	2)	0.30	0.06		1.00	0.15	1.51
Uppsala University (Olga Botner)	3	(3	0	2)	1.00	0.13		0.35		1.48
University of Alberta (Darren, Grant)	3	(2	1	2)	0.85		1.25	0.35	0.50	2.95
University of Oxford (Subir Sarkar)	1	(1	0	0)	0.10	0.02				0.12
University of Canterbury (Jenni Adams)	1	(1	0	2)	0.05	0.05		0.40	0.10	0.60
University of Adelaide (Gary Hill)	2	(1	0	1)					1.90	1.90
Chiba University (Shigeru Yoshida)	6	(3	3	2)		0.28		0.15	1.05	1.48
Université de Genève (Teresa Montaruli)	2	(1	1	3)	0.20	0.20		0.40	1.25	2.05
Universität Erlangen-Nürnberg (Gisela Anton)	1	(1	0	4)	0.10				0.75	0.85
Niels Bohr Institute (Jason Koskinen)	1	(1	0	2)	0.15	0.06	0.20	0.25	0.30	0.96
University of Toronto (Kenneth Clark)	1	(1	0	0)			0.35		0.10	0.45
Sungkyunkwan University (Carsten Rott)	2	(1	1	5)	0.30	0.12		0.85	0.55	1.82
Non-U.S. Institutions Subtotal	61	(38	23	85)	5.05	4.39	6.45	7.30	14.75	37.94
Total U.S. & Non-U.S.	139	(78	61	123)	11.56	14.67	12.00	10.25	26.04	74.51

Changes since last official version are colored red