IceCube M&O Staffing Matrix sort by WBS v29.0 2021.0325

WBS L2	WBS L3	Institution	Labor Cat.	Name	Task Description	Source of Funds	FTE
2.1 Program Coordination	2.1.0 Program Coordination	UTA	KE	JONES, BENJAMIN	OSCILLATIONS WORKING GROUP LEADERSHIP	US In-Kind	0.15
2.1 Program Coordination	2.1.1 Administration	BOCHUM	KE	Franckowiak, Anna	Analysis Coordinator	Non-US In-Kind	0.4
2.1 Program Coordination	2.1.1 Administration	BOCHUM	KE	TJUS, JULIA		Non-US In-Kind	0.1
2.1 Program Coordination	2.1.1 Administration	CHIBA	KE	ISHIHARA, AYA	Member of Speaker Comm	Non-US In-Kind	0.1
2.1 Program Coordination	2.1.1 Administration	CHIBA	PO	Meier, Maximilian	Diffuse WG Techinical Coordinator	Non-US In-Kind	0.15
2.1 Program Coordination	2.1.1 Administration	DESY	KE	ACKERMANN, MARKUS	ExecCom member	Non-US In-Kind	0.1
2.1 Program Coordination	2.1.1 Administration	DESY	KE	FRANCKOWIAK, ANNA	ExecCom member	Non-US In-Kind	0.1
2.1 Program Coordination	2.1.1 Administration	DESY	KE	FRANCKOWIAK, ANNA	ICC member	Non-US In-Kind	0.1
2.1 Program Coordination	2.1.1 Administration	DESY	KE	FRANCKOWIAK, ANNA	Analysis coordinator	Non-US In-Kind	0.25
2.1 Program Coordination	2.1.1 Administration	DESY	KE	KOWALSKI, MAREK	ExecCom member	Non-US In-Kind	0.1
2.1 Program Coordination	2.1.1 Administration	DESY	KE	KOWALSKI, MAREK	IceCube extensions coordination	Non-US In-Kind	0.1
2.1 Program Coordination	2.1.1 Administration	DESY	KE	VAN SANTEN, JAKOB	ICC Member	Non-US In-Kind	0.1
2.1 Program Coordination	2.1.1 Administration	DPNC	KE	MONTARULI, TERESA	ICB Member, UHECR-neutrino coordinator	Non-US In-Kind	0.15
2.1 Program Coordination	2.1.1 Administration	ERLANGEN	KE	KATZ, ULI	Institutional lead	Non-US In-Kind	0.2
2.1 Program Coordination	2.1.1 Administration	KIT	KE	ENGEL, RALPH	Coordination	Non-US In-Kind	0.1
2.1 Program Coordination	2.1.1 Administration	KIT	KE	HAUNGS, ANDREAS	Coordination	Non-US In-Kind	0.1
2.1 Program Coordination	2.1.1 Administration	MAINZ	PO	Rongen, Martin	Calibration WG convener	Non-US In-Kind	0.25
2.1 Program Coordination	2.1.1 Administration	MÜNSTER	KE	KAPPES, ALEXANDER	Institutional lead	Non-US In-Kind	0.2
2.1 Program Coordination	2.1.1 Administration	MÜNSTER	KE	KAPPES, ALEXANDER	Chair IceCube Impact Award committee	Non-US In-Kind	0.1
2.1 Program Coordination	2.1.1 Administration	NBI	KE	KOSKINEN, JASON	Pubcom member	Non-US In-Kind	0.1
2.1 Program Coordination	2.1.1 Administration	RWTH	KE	Wiebusch, Christopher	PubCom Member	Non-US In-Kind	0.1
2.1 Program Coordination	2.1.1 Administration	SU	KE	FINLEY, CHAD	ICB Member	Non-US In-Kind	0.05
2.1 Program Coordination	2.1.1 Administration	SU	KE	FINLEY, CHAD	Pubcomm member	Non-US In-Kind	0.1
2.1 Program Coordination	2.1.1 Administration	SU	KE	FINLEY, CHAD	Coordination with LIGO and ANTARES	Non-US In-Kind	0.05
2.1 Program Coordination	2.1.1 Administration	SU	KE	HULTQVIST, KLAS	ICB Member	Non-US In-Kind	0.05
2.1 Program Coordination	2.1.1 Administration	SU	KE	WALCK, CHRISTIAN	Publications Bookkeeping	Non-US In-Kind	0.05
2.1 Program Coordination	2.1.1 Administration	UC	KE	ADAMS, JENNI	ICB Member	Non-US In-Kind	0.05
2.1 Program Coordination	2.1.1 Administration	UC	KE	ADAMS, JENNI	Pubcom member	Non-US In-Kind	0.1
2.1 Program Coordination	2.1.1 Administration	UC	PO	AARTSEN, MARK	Analysis Reviewer (PS on Diff, 1+3 sterile)	Non-US In-Kind	0.05
2.1 Program Coordination	2.1.1 Administration	ULB	KE	AGUILAR SANCHEZ, JUAN ANTONIO	Institutional Lead	Non-US In-Kind	0.2
2.1 Program Coordination	2.1.1 Administration	ULB	KE	AGUILAR SANCHEZ, JUAN ANTONIO	Member of PubCom	Non-US In-Kind	0.2
2.1 Program Coordination	2.1.1 Administration	ULB	KE	AGUILAR SANCHEZ, JUAN ANTONIO	Beyond Standard Model WG co-Chair	Non-US In-Kind	0.25
2.1 Program Coordination	2.1.1 Administration	ULB	KE	TOSCANO, SIMONA	Member of PubCom	Non-US In-Kind	0.2
2.1 Program Coordination	2.1.1 Administration	UOX	KE	SARKAR, SUBIR	ICB Member	Non-US In-Kind	0.05
2.1 Program Coordination	2.1.1 Administration	UU	KE	BOTNER, OLGA	ExecCom Member	Non-US In-Kind	0.2
2.1 Program Coordination	2.1.1 Administration	VUB	KE	DE VRIES, KRIJN	Institutional Co-Lead	Non-US In-Kind	0.1
2.1 Program Coordination	2.1.1 Administration	VUB	KE	VAN EIJNDHOVEN, NICK	Institutional Lead	Non-US In-Kind	0.2
2.1 Program Coordination	2.1.1 Administration	DREXEL	KE	NEILSON, NAOKO	ICB member	US In-Kind	0.05
2.1 Program Coordination	2.1.1 Administration	GTECH	KE	TABOADA, IGNACIO	Member of the IceCube Impact Award committee	NSF Base Grants	0.05
2.1 Program Coordination	2.1.1 Administration	GTECH	KE	TABOADA, IGNACIO	ICB member	US In-Kind	0.05
2.1 Program Coordination	2.1.1 Administration	HARVARD	KE	ARGUELLES, CARLOS	Beyond Standard Model working group technical leader and ICB member	US In-Kind	0.2
2.1 Program Coordination	2.1.1 Administration	LBNL	KE	KLEIN,SPENCER	Supervise LBNL effort	NSF M&O Core	0.05
2.1 Program Coordination	2.1.1 Administration	LOYOLA	KE	Abbasi, Rasha	Institutional Lead	US In-Kind	0.1
2.1 Program Coordination	2.1.1 Administration	MARQUETTE	KE	ANDEEN, KAREN	Program Administration	NSF Base Grants	0.2
2.1 Program Coordination	2.1.1 Administration	MERCER	KE	MCNALLY, FRANK	Program administration	US In-Kind	0.1
2.1 Program Coordination	2.1.1 Administration	MIT	KE	CONRAD, JANET	ICB member	US In-Kind	0.05
2.1 Program Coordination	2.1.1 Administration	MSU	KE	DEYOUNG, TYCE	ExecCom member	NSF Base Grants	0.05
2.1 Program Coordination	2.1.1 Administration	MSU	KE	GRANT, DARREN	Collaboration Spokesperson	NSF Base Grants	0.5
2.1 Program Coordination	2.1.1 Administration	MSU	KE	GRANT, DARREN	ExecCom member	NSF Base Grants	0.2
2.1 Program Coordination	2.1.1 Administration	MSU	KE	KOPPER, CLAUDIO	Analysis coordinator	NSF Base Grants	0.25
2.1 Program Coordination	2.1.1 Administration	MSU	KE	KOPPER, CLAUDIO	ICC member ex officio	NSF Base Grants	0.1
2.1 Program Coordination	2.1.1 Administration	MSU	KE	KOPPER, CLAUDIO	ExecCom member ex officio	NSF Base Grants	0.1
2.1 Program Coordination	2.1.1 Administration	ROCHESTER	KE	BENZVI, SEGEV	Supernova Working Group Co-convener	US In-Kind	0.05
2.1 Program Coordination	2.1.1 Administration	ROCHESTER	KE	BENZVI, SEGEV	ICB member	US In-Kind	0.05
2.1 Program Coordination	2.1.1 Administration	ROCHESTER	KE	BENZVI, SEGEV	PubComm Chair	US In-Kind	0.1
2.1 Program Coordination	2.1.1 Administration	SBU	KE	KIRYLUK, JOANNA	Member of ICB Speakers committee chair	US In-Kind	0.1
2.1 Program Coordination	2.1.1 Administration	SDSMT	KE	XINHUA, BAI	SDSMT Institutional Lead	NSF Base Grants	0.53
2.1 Program Coordination	2.1.1 Administration	UA	KE	SANTANDER, MARCOS	Realtime Oversight Committee Chair	US In-Kind	0.2
2.1 Program Coordination	2.1.1 Administration	UA	KE	WILLIAMS, DAWN	Alabama Institutional Lead	US In-Kind	0.05

2.1 Program Coordination	2.1.1 Administration	UA	KE	WILLIAMS, DAWN	Publications Committee member	US In-Kind	0.1
2.1 Program Coordination	2.1.1 Administration	UD	KE	SCHROEDER, FRANK	TFT Board	US In-Kind	0.05
2.1 Program Coordination	2.1.1 Administration	UD	KE	SECKEL, DAVID	Institutional Lead	US In-Kind	0.1
2.1 Program Coordination	2.1.1 Administration	UD	PO	SOLDIN, DENNIS	ICC member	NSF Base Grants	0.05
2.1 Program Coordination	2.1.1 Administration	UD	PO	SOLDIN, DENNIS	CR-WG co-lead	NSF Base Grants	0.2
2.1 Program Coordination	2.1.1 Administration	UD	SC	TILAV, SERAP	ICC member		0.05
2.1 Program Coordination	2.1.1 Administration	UD	SC	TILAV, SERAP	M&O management		0.05
2.1 Program Coordination	2.1.1 Administration	UMD	KE	SULLIVAN, GREG	ExecCom member	US In-Kind	0.2
2.1 Program Coordination	2.1.1 Administration	UMD	KE	SULLIVAN, GREG	M&O planning	US In-Kind	0.3
2.1 Program Coordination	2.1.1 Administration	UMD	PO	OLIVAS, ALEX	ICC member	NSF Base Grants	0.05
2.1 Program Coordination	2.1.1 Administration	UMD	SC	BLAUFUSS, ERIK	ICC member	NSF Base Grants	0.05
2.1 Program Coordination	2.1.1 Administration	UTAH	KE	Rott, Carsten	publication committee member	US In-Kind	0.1
2.1 Program Coordination	2.1.1 Administration	UW	AD	VAKHNINA, CATHERINE	IceCube Resource Coordinator	NSF M&O Core	0.75
2.1 Program Coordination	2.1.1 Administration	UW	KE	HALZEN, FRANCIS	Principle Investigator	NSF M&O Core	0.38
2.1 Program Coordination	2.1.1 Administration	UW	KE	HALZEN, FRANCIS	Principle Investigator	US In-Kind	0.12
2.1 Program Coordination	2.1.1 Administration	UW	KE	HANSON, KAEL	Director of IceCube Maintenance and Operations	NSF M&O Core	0.47
2.1 Program Coordination	2.1.1 Administration	UW	KE	HANSON, KAEL	Director of IceCube Maintenance and Operations	US In-Kind	0.08
2.1 Program Coordination	2.1.1 Administration	UW	KE	KARLE, ALBRECHT	Associate Director for Science	NSF M&O Core	0.38
2.1 Program Coordination	2.1.1 Administration	UW	KE	KARLE, ALBRECHT	ExecCom member	US In-Kind	0.2
2.1 Program Coordination	2.1.1 Administration	UW	KE	VANDENBROUCKE, JUSTIN	Pubcom member, TFT member	US In-Kind	0.1
2.1 Program Coordination	2.1.1 Administration	UW	MA	MADSEN, JIM	Associate Director for Education & Outreach	NSF M&O Core	0.5
2.1 Program Coordination	2.1.2 Engineering and R&D Support	GENT	SC	UGENT SC	Acoustic R&D Support	Non-US In-Kind	0.05
2.1 Program Coordination	2.1.2 Engineering and R&D Support	RWTH	EN	BOCK, ERIC	IceAct Telescope electronic construction	Non-US In-Kind	0.05
2.1 Program Coordination	2.1.2 Engineering and R&D Support	RWTH	EN	JAHN, DIETER	IceAct Telescope mechanical construction	Non-US In-Kind	0.05
2.1 Program Coordination	2.1.2 Engineering and R&D Support	RWTH	GR	SCHAUFEL, MERLIN	IceAct Hardware Development	Non-US In-Kind	0.1
2.1 Program Coordination	2.1.2 Engineering and R&D Support	ULB	KE	MARIS, IOANA	SiPM characterization	Non-US In-Kind	0.1
2.1 Program Coordination	2.1.2 Engineering and R&D Support	ULB	KE	TOSCANO, SIMONA	Hybrid detection Radio/In-Ice	Non-US In-Kind	0.1
2.1 Program Coordination	2.1.2 Engineering and R&D Support	PSU	KE	COWEN, DOUG	Upgrade Co-PI	US In-Kind	0.2
2.1 Program Coordination	2.1.2 Engineering and R&D Support	UMD	GR	FREIDMAN, LIZ	Detector R&D	NSF Base Grants	0.25
2.1 Program Coordination	2.1.2 Engineering and R&D Support	UMD	KE	HOFFMAN, KARA	Detector R&D	US In-Kind	0.2
2.1 Program Coordination	2.1.2 Engineering and R&D Support	UW	EN	MEURES, THOMAS	Engineering Support: IceCube Lab Summer operations, cabling, & instrumentation testing	NSF M&O Core	0.25
2.1 Program Coordination	2.1.2 Engineering and R&D Support	UW	EN	SANDSTROM, PERRY	Engineering support: IceCube Lab Summer operations, fieldwork management, GPS & timing maintenance	NSF M&O Core	0.2
2.1 Program Coordination	2.1.2 Engineering and R&D Support	UW	MA	HAUGEN, JAMES	Engineering Support: logistics, northern hemisphere testing, & vendor management, contractor POC	NSF M&O Core	0.15
2.1 Program Coordination	2.1.2 Engineering and R&D Support	UW	SC	DUVERNOIS, MICHAEL	Specialized calibrations, SPICE core project coordination, extracting specialized information	NSF M&O Core	0.25
2.1 Program Coordination	2.1.2 Engineering and R&D Support	UW	SC	DUVERNOIS, MICHAEL	Ongoing EMI studies & mitigation, South Pole & Northern test site instrumentation, Summer South Pole field work	NSF M&O Core	0.25
2.1 Program Coordination	2.1.3 USAP Support & Safety	DREXEL	KE	NEILSON, NAOKO	South Pole Population planning committee	US In-Kind	0.05
2.1 Program Coordination	2.1.3 USAP Support & Safety	UW	MA	HAUGEN, JAMES	USAP Support: yearly sip, coordination with contractor (ASC)	NSF M&O Core	0.2
2.1 Program Coordination	2.1.3 USAP Support & Safety	UW	MA	ZERNICK, MICHAEL	Safety manager	NSF M&O Core	0.25
2.1 Program Coordination	2.1.4 Education & Outreach	DESY	GR	BROSTEAN-KAISER, JANNES	Organization of IceCube master classes at DESY	Non-US In-Kind	0.1
2.1 Program Coordination	2.1.4 Education & Outreach	DPNC	GR	LUCARELLI, FRANCESCO	Masterclass IceCube et Nuit de La Science 2022	Non-US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	DPNC	KE	MONTARULI, TERESA	Responsible of Analysis Output of the group, Advising of students, Masterclass	Non-US In-Kind	0.15
2.1 Program Coordination	2.1.4 Education & Outreach	MAINZ	GR	UM GR	I3 virtual reality	Non-US In-Kind	0.25

2.1 Program Coordination	2.1.4 Education & Outreach	MÜNSTER	GR	BUSSE, RAFFAELA	Public outreach	Non-US In-Kind	0.1
2.1 Program Coordination	2.1.4 Education & Outreach	MÜNSTER	PO	CLASSEN, LEW	Public outreach	Non-US In-Kind	0.1
2.1 Program Coordination	2.1.4 Education & Outreach	NBI	GR	BOURBEAU, ETIENNE	Speaking Engagements	Non-US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	NBI	KE	KOSKINEN, JASON	Speaking engagements (high school classes, open houses, etc.)	Non-US In-Kind	0.1
2.1 Program Coordination	2.1.4 Education & Outreach	RWTH	GR	HALVE, LASSE	Netzwerk Teilchenwelt/Masterclasses	Non-US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	RWTH	GR	HALVE, LASSE	AIS3	Non-US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	RWTH	GR	Schumacher, Lisa	Rosie&Gibbs translation	Non-US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	RWTH	KE	WIEBUSCH, CHRISTOPHER	AIS3	Non-US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	SU	KE	FINLEY, CHAD	Masterclasses, model, etc	Non-US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	SU	KE	HULTQVIST, KLAS	Masterclasses, model, etc	Non-US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	ULB	KE	AGUILAR SANCHEZ, JUAN ANTONIO	Masterclass	Non-US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	ULB	KE	TOSCANO, SIMONA	Masterclass	Non-US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	UOX	KE	SARKAR, SUBIR	Education & Outreach	Non-US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	UU	KE	BOTNER, OLGA	Education & Outreach	Non-US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	UU	KE	DE LOS HEROS, CARLOS	Outreach	Non-US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	UU	KE	HALLGREN, ALLAN	Outreach	Non-US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	UU	KE	O´SULLIVAN, ERIN	Outreach	Non-US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	VUB	GR	CORREA, PABLO	Education & Outreach	Non-US In-Kind	0.15
2.1 Program Coordination	2.1.4 Education & Outreach	VUB	GR	DE KOCKERE, SIMON	Education & Outreach	Non-US In-Kind	0.1
2.1 Program Coordination	2.1.4 Education & Outreach	VUB	KE	DE CLERCQ, CATHERINE	Education and Outreach	Non-US In-Kind	0.2
2.1 Program Coordination	2.1.4 Education & Outreach	VUB	KE	DE VRIES, KRIJN	Education & Outreach	Non-US In-Kind	0.1
2.1 Program Coordination	2.1.4 Education & Outreach	DREXEL	KE	NEILSON, NAOKO	Diversity Group member	US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	DREXEL	KE	NEILSON, NAOKO	Being the collaboration Ombudsperson	US In-Kind	0.1
2.1 Program Coordination	2.1.4 Education & Outreach	HARVARD	KE	ARGUELLES, CARLOS	Outreach activities in the Boston area	US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	MERCER	KE	MCNALLY, FRANK	IceCube MasterClass	US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	MIT	KE	CONRAD, JANET	CosmicWatch	US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	MSU	GR	MICALLEF, JESSIE	MSU Science Festival exhibit	NSF Base Grants	0.02
2.1 Program Coordination	2.1.4 Education & Outreach	MSU	KE	GRANT, DARREN	Education & Outreach	NSF Base Grants	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	MSU	KE	WHITEHORN, NATHAN	Educaton & Outreach	US In-Kind	0.04
2.1 Program Coordination	2.1.4 Education & Outreach	MSU	PO	HALLIDAY, ROBERT	Education & Outreach	NSF Base Grants	0.02
2.1 Program Coordination	2.1.4 Education & Outreach	PSU	KE	COWEN, DOUG	Education & Outreach	US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	PSU	KE	FOX, DEREK	Education & Outreach	US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	ROCHESTER	KE	BENZVI, SEGEV	IceCube MasterClass	US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	SBU	KE	KIRYLUK, JOANNA	Masterclasses, IceCube outreach activities in NY area	US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	SDSMT	GR	LEON SILVERIO, DIANA	Education & Outreach for neutrino astronomy and IceCube	NSF Base Grants	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	SDSMT	KE	XINHUA, BAI	Education & Outreach for neutrino astronomy and IceCube	NSF Base Grants	0.15
2.1 Program Coordination	2.1.4 Education & Outreach	UA	KE	SANTANDER, MARCOS	IceCube Outreach	US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	UA	KE	WILLIAMS, DAWN	IceCube Outreach	US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	UCB	KE	PRICE, BUFORD	Institutional lead	US In-Kind	0.1
2.1 Program Coordination	2.1.4 Education & Outreach	UMD	KE	UMD KE	Education & Outreach	US In-Kind	0.1
2.1 Program Coordination	2.1.4 Education & Outreach	UTA	KE	JONES, BENJAMIN	UTA astroparticle physics summer school for high school students	US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	UTAH	KE	Rott, Carsten	outreach	US In-Kind	0.05
2.1 Program Coordination	2.1.4 Education & Outreach	UW	AD	CHILDRESS-BECHTOL, ELLEN	Evaluation support: framework design and implementation for Broader Impacts program	NSF M&O Core	0.5
2.1 Program Coordination	2.1.4 Education & Outreach	UW	AD	DEMERIT, JEAN	Editor / science writer, E&O support	NSF M&O Core	0.25
2.1 Program Coordination	2.1.4 Education & Outreach	UW	AD	STEFFES, LINDSEY	E&O events and collaboration meetings mgmt. Website & social networks mgmt	NSF M&O Core	0.75
2.1 Program Coordination	2.1.5 Communications	UW	AD	O'KEEFE, MADELEINE	Communication plan manager, science writer. Masterclass and communication workshop coordinator	NSF M&O Core	0.75
2.2 Detector Operations & Maintenance (Online)	2.2.0 Detector Operations & Maintenance	UMD	PO	OLIVAS, ALEX	SW Coordinator – Detector M&O	NSF M&O Core	0.35
2.2 Detector Operations & Maintenance (Online)	2.2.0 Detector Operations & Maintenance	UW	MA	HAUGEN, JAMES	Logistics Manager	NSF M&O Core	0.15
2.2 Detector Operations & Maintenance (Online)	2.2.0 Detector Operations & Maintenance	UW	SC	DESIATI, PAOLO	IceCube Coordination Committee chair	NSF M&O Core	0.3

2.2 Detector Operations & Maintenance (Online)	2.2.0 Detector Operations & Maintenance	UW	SC	KELLEY, JOHN	Detector Maintenance and Operations Manager	NSF M&O Core	0.65
2.2 Detector Operations & Maintenance (Online)	2.2.1 Run Coordination	UW	IT	AUER, RALF	Winterovers coordinator, hiring and training of winterovers	NSF M&O Core	0.2
2.2 Detector Operations & Maintenance (Online)	2.2.1 Run Coordination	UW	SC	KAUER, MATTHEW	Run Coordinator	NSF M&O Core	0.4
2.2 Detector Operations & Maintenance (Online)	2.2.1 Run Coordination	UW	WO	UW WINTER OVERS	Operate Detector (Winter-Overs)	NSF M&O Core	3
2.2 Detector Operations & Maintenance (Online)	2.2.2 Data Acquisition	LBNL	EN	STEZELBERGER,THORSTEN	Maintain DAQ Hardware	NSF M&O Core	0.15
2.2 Detector Operations & Maintenance (Online)	2.2.2 Data Acquisition	PSU	SC	ANDERSON, TYLER	DAQ Firmware Development	NSF M&O Core	0.23
2.2 Detector Operations & Maintenance (Online)	2.2.2 Data Acquisition	UW	CS	BENDFELT, TIMOTHY	IceCube DAQ: StringHub and domapp; Upgrade integration	NSF M&O Core	0.75
2.2 Detector Operations & Maintenance (Online)	2.2.2 Data Acquisition	UW	CS	GLOWACKI, DAVID	IceCube DAQ: trigger and event builder	NSF M&O Core	0.5
2.2 Detector Operations & Maintenance (Online)	2.2.2 Data Acquisition	UW	CS	GLOWACKI, DAVID	IceCube DAQ: command-and-control server, testing infrastructure	NSF M&O Core	0.5
2.2 Detector Operations & Maintenance (Online)	2.2.2 Data Acquisition	UW	EN	MEURES, THOMAS	Data Acquisition HW Maintenance: DOR, DOMHub and DOMCal	NSF M&O Core	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.2 Data Acquisition	UW	GR	TY, BUNHENG	DOR Firmware	NSF M&O Core	0.25
2.2 Detector Operations & Maintenance (Online)	2.2.2 Data Acquisition	UW	SC	KELLEY, JOHN	DOM software: DOR device driver, DOMHub scripts, DOMCal	NSF M&O Core	0.15
2.2 Detector Operations & Maintenance (Online)	2.2.2 Data Acquisition	UW	SC	KELLEY, JOHN	Track DOM issues, generate detector run configurations	NSF M&O Core	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	ALBERTA	KE	MOORE, ROGER	TFT Board Member	Non-US In-Kind	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	BOCHUM	GR	Wulff, Johan	responsible for Moon Filter	Non-US In-Kind	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	CHIBA	KE	ISHIHARA, AYA	EHE Filters	Non-US In-Kind	0.15
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	DESY	KE	VAN SANTEN, JAKOB	Reco/Syst WG co-chair	Non-US In-Kind	0.25
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	DTMND	GR	HÜNNEFELD, MIRKO	Reconstruction	Non-US In-Kind	0.3
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	DTMND	GR	Kardum, Leonora	Physics filters	Non-US In-Kind	0.2
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	DTMND	SC	RUHE, TIM	Physics filters	Non-US In-Kind	0.2
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	NBI	KE	AHLERS, MARKUS	Neutrino source WG co-convenor	Non-US In-Kind	0.25
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	NBI	PO	STUTTARD, TOM	Oscillation WG co-convenor	Non-US In-Kind	0.25
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	RWTH	GR	BOETTCHER, JAKOB	SLOP Filter + Trigger	Non-US In-Kind	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	RWTH	GR	Fürst, Philipp	Final level diffuse tests	Non-US In-Kind	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	RWTH	GR	PHILIPPEN, SASKIA	Moon filter verification	Non-US In-Kind	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	UC	PO	AARTSEN, MARK	Cascade filter	Non-US In-Kind	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	ULB	GR	RENZI, GIOVANNI	Vertical event filter, WIMP L2	Non-US In-Kind	0.2
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	UU	KE	DE LOS HEROS, CARLOS	TFT Board member	Non-US In-Kind	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	WUPPERTAL	GR	LAUBER, FREDERIK	Detection of Magnetic Monopoles through radio luminescence	Non-US In-Kind	0.2
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	WUPPERTAL	KE	HELBING, KLAUS	BSM WG chair	Non-US In-Kind	0.25
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	WUPPERTAL	KE	HELBING, KLAUS	BSM WG chair	Non-US In-Kind	0.25
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	WUPPERTAL	PO	POLLMANN, ANNA	SLOP filter, Monopole filte	Non-US In-Kind	0.25
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	DREXEL	KE	NEILSON, NAOKO	TFT Board Co-Chair	US In-Kind	0.25
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	DREXEL	KE	NEILSON, NAOKO	Splitting – Q/P frame and coincidence	US In-Kind	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	MSU	KE	WHITEHORN, NATHAN	Diffuse WG co-chair	US In-Kind	0.25
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	SBU	GR	ZHANG, ZELONG	Cascade filter / L3	NSF Base Grants	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	UAA	KE	RAWLINS, KATHERINE	Cosmic Ray WG co-convener	US In-Kind	0.25
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	UD	GR	BINTA AMIN, MOUREEN	Including IceTop in ROC consideration	NSF Base Grants	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	UD	PO	SOLDIN, DENNIS	IceTop Filter	NSF Base Grants	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	UMD	CS	SCHMIDT, TORSTEN	Maintain and develop PnF software, support operations to respond to and debug unexpected errors	NSF M&O Core	0.5
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	UMD	GR	EVANS, JOHN	Near Real time alerts/GRB	NSF Base Grants	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	UMD	GR	FREIDMAN, LIZ	Real-time & near real time alerts	NSF Base Grants	0.35
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	UMD	PO	LARSON, MICHAEL	Near Real time alerts/GRB	NSF Base Grants	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	UMD	SC	BLAUFUSS, ERIK	Maintain PnF S/W and Online Filters	NSF M&O Core	0.2
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	UMD	SC	BLAUFUSS, ERIK	Filter requests, bandwidth, TFT Board Member. IceTray	NSF M&O Core	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.3 Online Filter (PnF)	UW	SC	KAUER, MATTHEW	TFT Board member	US In-Kind	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	DESY	GR	DESY GR	Detector Monitoring	Non-US In-Kind	0.12
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	DESY	SC	DESY SC	Detector Monitoring	Non-US In-Kind	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	DPNC	GR	LUCARELLI FRANCESCO	Detector Monitoring	Non-US In-Kind	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	DTMND	GR	DTMD GR	Detector Monitoring	Non-US In-Kind	0.03
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	GENT	GR	VERPOEST, STEF	Detector Monitoring	Non-US In-Kind	0.03

WBS L2	WBS L3	Inst.	Type	Name	Task	Funding	FTE
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	MAINZ	GR	FRITZ, ALEXANDER	SuperNova Operations	Non-US In-Kind	0.4
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	MAINZ	GR	UM GR	Detector Monitoring	Non-US In-Kind	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	NBI	GR	RIBERS, DAVID	Detector monitoring shifts	Non-US In-Kind	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	RWTH	GR	HALVE, LASSE	Detector monitoring shifts contact from Aachen	Non-US In-Kind	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	RWTH	GR	PHILIPPEN, SASKIA	Integration of Moonshadow into detector monitoring	Non-US In-Kind	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	RWTH	GR	RWTH GR	Detector monitoring shifts	Non-US In-Kind	0.12
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	SKKU	PO	Choi, Koun	Detector Monitoring	Non-US In-Kind	0.03
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	SU	GR	DEOSKAR, KUNAL	Detector Monitoring	Non-US In-Kind	0.06
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	TUM	GR	MPI GR	Detector Monitoring	Non-US In-Kind	0.045
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	UC	GR	RAISSI, AMIR	Detector Monitoring	Non-US In-Kind	0.03
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	UC	KE	ADAMS, JENNI	Detector Monitoring	Non-US In-Kind	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	UC	PO	AARTSEN, MARK	Detector Monitoring	Non-US In-Kind	0.02
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	ULB	GR	IOVINE, NADÉGE	IceTop Snow Monitor	Non-US In-Kind	0.2
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	ULB	GR	ULB GR	Detector Monitoring	Non-US In-Kind	0.12
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	ULB	KE	MARIS, IOANA	Detector Monitoring	Non-US In-Kind	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	UU	GR	VALTONEN-MATTILA, NORA	Detector monitoring shifts	Non-US In-Kind	0.03
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	VUB	GR	VUB GR	Detector monitoring shifts	Non-US In-Kind	0.06
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	WUPPERTAL	GR	WUPPERTAL GR	Monitoring shifts	Non-US In-Kind	0.03
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	CAU	KE	JAPARIDZE, GEORGE	Detector monitoring shifts	US In-Kind	0.015
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	DREXEL	GR	SCLAFANI, STEVE	Detector monitoring shifts	US In-Kind	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	GTECH	GR	PRANAV, DAVE	Detector monitoring shifts	US In-Kind	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	LBNL	PO	ROBERTSON, SALLY	Detector monitoring shifts	NSF Base Grants	0.09
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	LOYOLA	KE	Abbasi, Rasha	Detector monitoring shift	US In-Kind	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	MSU	GR	CLARK, BRIAN	Detector monitoring shifts	US In-Kind	0.03
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	MSU	GR	SALAZAR, DANIEL	Detector monitoring shifts	NSF Base Grants	0.03
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	MSU	PO	NISA, MEHR	Detector monitoring shifts	NSF Base Grants	0.03
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	PSU	GR	DELAUNAY, JIMMY	Detector monitoring shifts	US In-Kind	0.03
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	PSU	GR	Li, Yijia	Detector monitoring shifts	US In-Kind	0.03
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	PSU	GR	PANKOVA, DARIA	Detector monitoring shifts	US In-Kind	0.03
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	PSU	PO	GREGOIRE, TIMOTHEE	Maintain IceCube integration with AMON; HESE cascades	US In-Kind	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	ROCHESTER	GR	GRISWOLD, SPENCER	Detector monitoring shifts	US In-Kind	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	SBU	GR	ZHANG, ZELONG	Detector Monitoring	NSF Base Grants	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	SDSMT	GR	LEON SILVERIO, DIANA	IceCube operation monitoring	NSF Base Grants	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	SDSMT	KE	XINHUA, BAI	IceCube operation monitoring	NSF Base Grants	0.02
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	UA	GR	BRNICH, REBECCA	Monitoring shifts	US In-Kind	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	UA	GR	GHADIMI, AVA	Monitoring shifts	US In-Kind	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	UA	GR	GOSWAMI, SREETAMA	Online Moon shadow analysis (monitoring)	US In-Kind	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	UA	GR	GOSWAMI, SREETAMA	Monitoring shifts	US In-Kind	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	UA	KE	SANTANDER, MARCOS	Online Moon shadow analysis (monitoring)	US In-Kind	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	UCI	GR	HANSON, JORDAN	Detector monitoring shifts	US In-Kind	0.01
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	UCI	KE	BARWICK, STEVE	Detector monitoring shifts	US In-Kind	0.01
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	UD	GR	PAUDEL, EK NARAYAN	Data monitoring	US In-Kind	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	UD	GR	PUNSUEBSAY, NOPPODAL	Data monitoring	US In-Kind	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	UD	SC	TILAV, SERAP	Data monitoring	NSF M&O Core	0.2
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	UMD	GR	UMD GR	Detector monitoring shifts	NSF Base Grants	0.06
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	UW	CS	BRAUN, JAMES	I3MS Iridium messaging system software	NSF M&O Core	0.5
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	UW	CS	BURRESON, COLIN	IceCube Live monitoring system: web interface, databases	NSF M&O Core	0.9
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	UW	CS	BURRESON, COLIN	Supernova alert interface, DAQ monitoring, and visualization in IceCube Live	NSF M&O Core	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	UW	CS	FRERE, MICHAEL	IceCube Live lead developer	NSF M&O Core	0.75
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	UW	GR	SAFA, IBRAHIM	Detector monitoring shifts	US In-Kind	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	UW	GR	UW GR	Detector monitoring shifts	NSF Base Grants	0.12
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	UW	PO	UW PO	Detector monitoring shifts	NSF Base Grants	0.08
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	UW	SC	KAUER, MATTHEW	Data Monitoring lead: coordinate test and feature development; design underlying analysis algorithms	NSF M&O Core	0.2
2.2 Detector Operations & Maintenance (Online)	2.2.4 Detector Monitoring	UW	SC	KAUER, MATTHEW	Training and coordinating monitoring shifters	NSF M&O Core	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.5 Experiment Control	UW	CS	BRAUN, JAMES	IceCube LiveControl experiment control software: alerts and component communication	NSF M&O Core	0.5

2.2 Detector Operations & Maintenance (Online)	2.2.5 Experiment Control	UW	CS	FRERE, MICHAEL	IceCube LiveControl experiment control software: operator interface	NSF M&O Core	0.25
2.2 Detector Operations & Maintenance (Online)	2.2.6 Surface Detectors	KIT	GR	Bontempo, Federico	Radio operation	Non-US In-Kind	0.2
2.2 Detector Operations & Maintenance (Online)	2.2.6 Surface Detectors	KIT	GR	KOUNDAL, PARAS	Scintillator operation	Non-US In-Kind	0.2
2.2 Detector Operations & Maintenance (Online)	2.2.6 Surface Detectors	KIT	GR	OEHLER, MARIE	Scintillator operation	Non-US In-Kind	0.2
2.2 Detector Operations & Maintenance (Online)	2.2.6 Surface Detectors	KIT	GR	Shefali, Shefali	Scintillator operation	Non-US In-Kind	0.2
2.2 Detector Operations & Maintenance (Online)	2.2.6 Surface Detectors	KIT	GR	TURCOTTE, ROXANNE	Radio operation	Non-US In-Kind	0.2
2.2 Detector Operations & Maintenance (Online)	2.2.6 Surface Detectors	KIT	KE	HAUNGS, ANDREAS	Co-task leader scintillators	Non-US In-Kind	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.6 Surface Detectors	KIT	PO	DUJMOVIC, HRVOJE	Radio operation	Non-US In-Kind	0.3
2.2 Detector Operations & Maintenance (Online)	2.2.6 Surface Detectors	KIT	PO	HUBER, THOMAS	Scintillator operation	Non-US In-Kind	0.3
2.2 Detector Operations & Maintenance (Online)	2.2.6 Surface Detectors	KIT	SC	SCHIELER, HARALD	Construction (scintillator)	Non-US In-Kind	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.6 Surface Detectors	KIT	SC	WEINDL, ANDREAS	DAQ surface	Non-US In-Kind	0.3
2.2 Detector Operations & Maintenance (Online)	2.2.6 Surface Detectors	RWTH	GR	SCHAUFEL, MERLIN	IceAct Monitoring	Non-US In-Kind	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.6 Surface Detectors	ULB	PO	MOCKLER, DANIELA	Validation between SLC signals and MC	Non-US In-Kind	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.6 Surface Detectors	WUPPERTAL	GR	BINDIG, DANIEL	Laterally separated muons in IceTop	Non-US In-Kind	0.2
2.2 Detector Operations & Maintenance (Online)	2.2.6 Surface Detectors	MARQUETTE	GR	PAUL, LARISSA	Surface detector R&D	NSF Base Grants	0.6
2.2 Detector Operations & Maintenance (Online)	2.2.6 Surface Detectors	MARQUETTE	KE	ANDEEN, KAREN	Surface detector R&D	NSF Base Grants	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.6 Surface Detectors	MARQUETTE	PO	PLUM, MATTHIAS	Surface detector R&D	NSF Base Grants	0.5
2.2 Detector Operations & Maintenance (Online)	2.2.6 Surface Detectors	UD	GR	BINTA AMIN, MOUREEN	IceTop simulation	NSF Base Grants	0.2
2.2 Detector Operations & Maintenance (Online)	2.2.6 Surface Detectors	UD	GR	PAN, YUE	Radio operations, data management	US In-Kind	0.25
2.2 Detector Operations & Maintenance (Online)	2.2.6 Surface Detectors	UD	GR	PAN, YUE	Radio monitoring	US In-Kind	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.6 Surface Detectors	UD	GR	PAN, YUE	Radio simulations	US In-Kind	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.6 Surface Detectors	UD	KE	SCHROEDER, FRANK	Surface detector enhancements	US In-Kind	0.15
2.2 Detector Operations & Maintenance (Online)	2.2.6 Surface Detectors	UD	SC	TILAV, SERAP	Coordinate IceTop Operations	NSF M&O Core	0.3
2.2 Detector Operations & Maintenance (Online)	2.2.6 Surface Detectors	UW	EN	SANDSTROM, PERRY	Design, build and test experimental apparatus for restoring IceTop detector efficiency	NSF M&O Core	0.2
2.2 Detector Operations & Maintenance (Online)	2.2.6 Surface Detectors	UW	SC	KAUER, MATTHEW	Design and build experimental apparatus for restoring IceTop detector efficiency	NSF M&O Core	0.2
2.2 Detector Operations & Maintenance (Online)	2.2.6 Surface Detectors	UW	SC	TOSI, DELIA	Test and commission experimental apparatus for restoring IceTop detector efficiency	NSF M&O Core	0.5
2.2 Detector Operations & Maintenance (Online)	2.2.7 Supernova System	MAINZ	GR	Kappesser, David	Supernova Simulation	Non-US In-Kind	0.2
2.2 Detector Operations & Maintenance (Online)	2.2.7 Supernova System	MAINZ	KE	Koepke, Lutz	SuperNova system	Non-US In-Kind	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.7 Supernova System	UU	GR	VALTONEN-MATTILA, NORA	Responsibility for the hitspool data	Non-US In-Kind	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.7 Supernova System	UU	KE	O´SULLIVAN, ERIN	Supernova WG co-chair	Non-US In-Kind	0.15
2.2 Detector Operations & Maintenance (Online)	2.2.7 Supernova System	ROCHESTER	GR	GRISWOLD, SPENCER	Supernova DAQ	US In-Kind	0.15
2.2 Detector Operations & Maintenance (Online)	2.2.7 Supernova System	ROCHESTER	KE	BENZVI, SEGEV	Supernova DAQ	US In-Kind	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.7 Supernova System	SUBR	KE	TER-ANTONYAN, SAMVEL	Supernova Data Analysis	US In-Kind	0.015
2.2 Detector Operations & Maintenance (Online)	2.2.7 Supernova System	UW	CS	BENDFELT, TIMOTHY	IceCube DAQ: supernova interface, hitspooling	NSF M&O Core	0.25
2.2 Detector Operations & Maintenance (Online)	2.2.7 Supernova System	YALE	KE	MARUYAMA, REINA	Supernova DAQ	US In-Kind	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.8 Real-Time Alerts	BOCHUM	PO	Lincetto, Massimiliano	Realtime Shifter	Non-US In-Kind	0.2
2.2 Detector Operations & Maintenance (Online)	2.2.8 Real-Time Alerts	DESY	GR	LAGUNAS GUALDA, CHRISTINA	Online data stream maintenance	Non-US In-Kind	0.2
2.2 Detector Operations & Maintenance (Online)	2.2.8 Real-Time Alerts	DESY	GR	STEIN, ROBERT	Online data stream maintenance	Non-US In-Kind	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.8 Real-Time Alerts	DESY	KE	FRANCKOWIAK, ANNA	Realtime oversight committee member	Non-US In-Kind	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.8 Real-Time Alerts	SU	KE	FINLEY, CHAD	Realtime Oversight Committee	Non-US In-Kind	0.05
2.2 Detector Operations & Maintenance (Online)	2.2.8 Real-Time Alerts	UU	PO	SHARMA, ANKUR	Development and automatization of alternative angular uncertainty measures for alert events	Non-US In-Kind	0.2
2.2 Detector Operations & Maintenance (Online)	2.2.8 Real-Time Alerts	GTECH	GR	CHEN, CHUJIE	Design of Alert DB and webpage	NSF Base Grants	0.2
2.2 Detector Operations & Maintenance (Online)	2.2.8 Real-Time Alerts	GTECH	GR	PRANAV, DAVE	Real-time shifter (under auspices of the ROC)	NSF Base Grants	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.8 Real-Time Alerts	GTECH	KE	TABOADA, IGNACIO	Member of the Real-time Oversight Committee (ROC)	NSF Base Grants	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.8 Real-Time Alerts	PSU	PO	AYALA, HUGO	Maintain IceCube integration with AMON; HESE cascades	US In-Kind	0.1
2.2 Detector Operations & Maintenance (Online)	2.2.8 Real-Time Alerts	UW	GR	MANCINA, SARAH	Estres filter, Starting track veto	NSF Base Grants	0.2
2.2 Detector Operations & Maintenance (Online)	2.2.9 SPS/SPTS	UW	EN	MEURES, THOMAS	Maintain South Pole Test System H/W Infrastructure	NSF M&O Core	0.25
2.2 Detector Operations & Maintenance (Online)	2.2.9 SPS/SPTS	UW	EN	SANDSTROM, PERRY	Maintain South Pole System H/W Infrastructure	NSF M&O Core	0.2
2.2 Detector Operations & Maintenance (Online)	2.2.9 SPS/SPTS	UW	IT	AUER, RALF	Maintain South Pole computing H/W infrastructure and operating systems	NSF M&O Core	0.23
2.2 Detector Operations & Maintenance (Online)	2.2.9 SPS/SPTS	UW	IT	AUER, RALF	Maintain South Pole Test System computing H/W Infrastructure and operating systems	NSF M&O Core	0.1
2.3 Computing & Data Management Services	2.3.0 Computing & Data Management Services	KIT	SC	KANG, DONGHWA	Middleware Setup	Non-US In-Kind	0.15

2.3 Computing & Data Management Services	2.3.0 Computing & Data Management Services	LBNL	KE	KLEIN,SPENCER	Oversee raw data storage at LBNL	US In-Kind	0.08
2.3 Computing & Data Management Services	2.3.0 Computing & Data Management Services	UW	IT	COMERFORD, DENNIS	End-user support for common collaboration services	NSF M&O Core	0.6
2.3 Computing & Data Management Services	2.3.0 Computing & Data Management Services	UW	MA	RIEDEL, BENEDIKT	Computing Infrastructure Manager	NSF M&O Core	0.9
2.3 Computing & Data Management Services	2.3.1 Data Storage & Transfer	UW	CS	MEADE, PATRICK	Operate data handling services	NSF M&O Core	0.25
2.3 Computing & Data Management Services	2.3.1 Data Storage & Transfer	UW	CS	MEADE, PATRICK	Maintain data handling software (JADE): Archive at the S. Pole, transfer, ingest to the Data Warehouse and long-term archive.	NSF M&O Core	0.25
2.3 Computing & Data Management Services	2.3.1 Data Storage & Transfer	UW	CS	MEADE, PATRICK	Operate Data transfer from S. Pole to UW Data Warehouse and archive services at S. Pole	NSF M&O Core	0.5
2.3 Computing & Data Management Services	2.3.1 Data Storage & Transfer	UW	IT	BARNET, STEVE	Maintain and Operate Data Storage Infrastructure	NSF M&O Core	0.3
2.3 Computing & Data Management Services	2.3.1 Data Storage & Transfer	UW	IT	BELLINGER, JIM	Long term preservation and archive services, data curation	NSF M&O Core	1
2.3 Computing & Data Management Services	2.3.1 Data Storage & Transfer	UW	IT	BRIK, VLADIMIR	Maintain storage system needed for simulation production	NSF M&O Core	0.2
2.3 Computing & Data Management Services	2.3.2 Core Data Center Infrastructure	UW	IT	BARNET, STEVE	Operations and cybersecurity manager	NSF M&O Core	0.7
2.3 Computing & Data Management Services	2.3.2 Core Data Center Infrastructure	UW	IT	BRIK, VLADIMIR	Maintain Core Data Center Infrastructure Systems	NSF M&O Core	0.1
2.3 Computing & Data Management Services	2.3.2 Core Data Center Infrastructure	UW	IT	MAYER, DAVID	IceCube Web Development	NSF M&O Core	0.5
2.3 Computing & Data Management Services	2.3.2 Core Data Center Infrastructure	UW	IT	SHEPERD, ALEC	Maintain and operate Virtual Machines deployment infrastrucutre	NSF M&O Core	0.5
2.3 Computing & Data Management Services	2.3.2 Core Data Center Infrastructure	UW	IT	SHEPERD, ALEC	Maintain Core Data Center Infrastructure Systems	NSF M&O Core	0.25
2.3 Computing & Data Management Services	2.3.3 Central Computing Resources	DESY	IT	DESY IT	European Data Center - Distributed Computing and Labor	Non-US In-Kind	1
2.3 Computing & Data Management Services	2.3.3 Central Computing Resources	DESY	KE	ACKERMANN, MARKUS	DESY TIER-1 coordination	Non-US In-Kind	0.1
2.3 Computing & Data Management Services	2.3.3 Central Computing Resources	DESY	KE	VAN SANTEN, JAKOB	TIER-1 coordination / Simulation Production	Non-US In-Kind	0.25
2.3 Computing & Data Management Services	2.3.3 Central Computing Resources	LBNL	IT	LBNL, all	NERSC Data Archiving, Distributed Computing and Labor	US In-Kind	1
2.3 Computing & Data Management Services	2.3.3 Central Computing Resources	SUBR	KE	TER-ANTONYAN, SAMVEL	Cloud Computing	US In-Kind	0.3
2.3 Computing & Data Management Services	2.3.3 Central Computing Resources	UMD	IT	UMD IT	Coordination and Support for Grid and distributed computing	NSF M&O Core	0
2.3 Computing & Data Management Services	2.3.3 Central Computing Resources	UW	IT	BRIK, VLADIMIR	Maintain High Performance Computing services.	NSF M&O Core	0.1
2.3 Computing & Data Management Services	2.3.3 Central Computing Resources	UW	IT	SHEPERD, ALEC	Maintain Central Computing Infrastructure Systems	NSF M&O Core	0.25
2.3 Computing & Data Management Services	2.3.4 Distributed Computing Resources	ALBERTA	CS	RAJEWSKI, JAMIE	Management of ComputeCanada allocation	Non-US In-Kind	0.4
2.3 Computing & Data Management Services	2.3.4 Distributed Computing Resources	ALBERTA	KE	YANEZ, JUAN PABLO	Management of ComputeCanada allocation	Non-US In-Kind	0.1
2.3 Computing & Data Management Services	2.3.4 Distributed Computing Resources	RWTH	GR	Ganster, Erik	OSG Site RWTH/Pyglidein	Non-US In-Kind	0.05
2.3 Computing & Data Management Services	2.3.4 Distributed Computing Resources	RWTH	GR	STETTNER, JÖRAN	OSG Site RWTH/Pyglidein	Non-US In-Kind	0.05
2.3 Computing & Data Management Services	2.3.4 Distributed Computing Resources	MSU	KE	KOPPER, CLAUDIO	GPU computing resourses	NSF Base Grants	0.05
2.3 Computing & Data Management Services	2.3.4 Distributed Computing Resources	MSU	PO	CLARK, BRIAN	IceProd site manager at MSU HPCC	US In-Kind	0.1
2.3 Computing & Data Management Services	2.3.4 Distributed Computing Resources	MSU	PO	HALLIDAY, ROBERT	IceProd site manager at MSU HPCC	NSF M&O Core	0.25
2.3 Computing & Data Management Services	2.3.4 Distributed Computing Resources	UW	CS	EVANS, ERIC	Core software maintenance	NSF M&O Core	0.5

2.3 Computing & Data Management Services	2.3.4 Distributed Computing Resources	UW	IT	BRIK, VLADIMIR	Maintain distributed high-throughput cluster	NSF M&O Core	0.6
2.3 Computing & Data Management Services	2.3.4 Distributed Computing Resources	UW	IT	SCHULTZ, DAVID	Core distributed software maintenance	NSF M&O Core	0.5
2.3 Computing & Data Management Services	2.3.4 Distributed Computing Resources	UW	IT	SCHULTZ, DAVID	Maintain workflow management system	NSF M&O Core	0.4
2.3 Computing & Data Management Services	2.3.4 Distributed Computing Resources	UW	IT	SCHULTZ, DAVID	Manage Production Software Team	NSF M&O Core	0.1
2.4 Data Processing & Simulation Services	2.4.0 Data Processing & Simulation Services	DPNC	GR	LUCARELLI FRANCESCO	Time dependent flare search	Non-US In-Kind	0.7
2.4 Data Processing & Simulation Services	2.4.0 Data Processing & Simulation Services	SDSMT	GR	LEON SILVERIO, DIANA	Data/processing consistency justification; Additional parameters from new reconstruction	NSF Base Grants	0.2
2.4 Data Processing & Simulation Services	2.4.0 Data Processing & Simulation Services	UW	DS	DIAZ-VELEZ, JUAN CARLOS	Coordination of Offline Processing and Simulation Production efforts with analysis working groups	NSF M&O Core	0.25
2.4 Data Processing & Simulation Services	2.4.1 Offline Data Production	GENT	GR	VERPOEST, STEF	Cosmic Ray L3 scripts	Non-US In-Kind	0.5
2.4 Data Processing & Simulation Services	2.4.1 Offline Data Production	GENT	GR	VERPOEST, STEF	Pass2 verification	Non-US In-Kind	0.05
2.4 Data Processing & Simulation Services	2.4.1 Offline Data Production	NBI	GR	BOURBEAU, ETIENNE	OscNext Event Selection	Non-US In-Kind	0.65
2.4 Data Processing & Simulation Services	2.4.1 Offline Data Production	NBI	PO	STUTTARD, TOM	OscNext Event Selection	Non-US In-Kind	0.2
2.4 Data Processing & Simulation Services	2.4.1 Offline Data Production	RWTH	GR	Fürst, Philipp	Diffuse sample production	Non-US In-Kind	0.05
2.4 Data Processing & Simulation Services	2.4.1 Offline Data Production	RWTH	GR	PHILIPPEN, SASKIA	Moon Processing MC& Experimental data	Non-US In-Kind	0.1
2.4 Data Processing & Simulation Services	2.4.1 Offline Data Production	RWTH	GR	SCHUMACHER, LISA	HE muondata for IC/Auger/TA coinc. Analyses	Non-US In-Kind	0.05
2.4 Data Processing & Simulation Services	2.4.1 Offline Data Production	RWTH	GR	STETTNER, JÖRAN	Diffuse-sample for PS analyses	Non-US In-Kind	0.05
2.4 Data Processing & Simulation Services	2.4.1 Offline Data Production	TUM	GR	GLAUCH, THEO	Pass-2	Non-US In-Kind	0.2
2.4 Data Processing & Simulation Services	2.4.1 Offline Data Production	TUM	GR	HUBER, MATTHIAS	Muon L3 Scripts	Non-US In-Kind	0.2
2.4 Data Processing & Simulation Services	2.4.1 Offline Data Production	TUM	PO	NIEDERHAUSEN, HANS	Muon L3 Scripts	Non-US In-Kind	0.1
2.4 Data Processing & Simulation Services	2.4.1 Offline Data Production	DREXEL	GR	SCLAFANI, STEVE	Neutrino Sources Data Curator	US In-Kind	0.2
2.4 Data Processing & Simulation Services	2.4.1 Offline Data Production	MSU	PO	NISA, MEHR	Cloud-based event reconstruction infrastructure development	US In-Kind	0.1
2.4 Data Processing & Simulation Services	2.4.1 Offline Data Production	OSU	GR	MEDINA, ANDRES	Pass2 Verification	NSF Base Grants	0.05
2.4 Data Processing & Simulation Services	2.4.1 Offline Data Production	SBU	GR	ZHANG, ZELONG	Pass2/3 verification	NSF Base Grants	0.1
2.4 Data Processing & Simulation Services	2.4.1 Offline Data Production	UW	CS	EVANS, ERIC	Data validation tool development	NSF M&O Core	0.1
2.4 Data Processing & Simulation Services	2.4.1 Offline Data Production	UW	DS	SNIHUR, ROBERT	Experimental data processing and reduction. Interface with collaboration working groups to deliver analysis-ready data	NSF M&O Core	1
2.4 Data Processing & Simulation Services	2.4.1 Offline Data Production	UW	GR	LEONARD, KAYLA	Developing for MuonGun for low energies	US In-Kind	0.3
2.4 Data Processing & Simulation Services	2.4.1 Offline Data Production	UW	GR	LUSZCZAK, WILLIAM	maintenance of C-Sky, other	NSF Base Grants	0.2
2.4 Data Processing & Simulation Services	2.4.2 Simulation Production	ALBERTA	GR	LIUBARSKA, MARIIA	New GENIE interface developer / maintainer	Non-US In-Kind	0.2
2.4 Data Processing & Simulation Services	2.4.2 Simulation Production	ALBERTA	GR	SARKAR, SOURAV	PYTHIA event generator implementation and maintenance	Non-US In-Kind	0.15
2.4 Data Processing & Simulation Services	2.4.2 Simulation Production	CHIBA	PO	MEIER, MAXIMILIAN	High energy Corsika simulation production with Sibyll 3.2 and EPOS	Non-US In-Kind	0.2
2.4 Data Processing & Simulation Services	2.4.2 Simulation Production	DTMND	GR	WERTHEBACH, JOHANNES	Simulation production site manager at Dortmund	Non-US In-Kind	0.3
2.4 Data Processing & Simulation Services	2.4.2 Simulation Production	KIT	PO	LESZCZYNSKA, AGNIESZKA	Validation and Monitoring data sets	Non-US In-Kind	0.2
2.4 Data Processing & Simulation Services	2.4.2 Simulation Production	KIT	SC	KANG, DONGHWA	Surface simulations	Non-US In-Kind	0.15
2.4 Data Processing & Simulation Services	2.4.2 Simulation Production	RWTH	GR	Boettcher, Jakob	Monopole Background simulation production	Non-US In-Kind	0.1
2.4 Data Processing & Simulation Services	2.4.2 Simulation Production	RWTH	GR	GANSTER, ERIK	MC Production for global diffuse fit	Non-US In-Kind	0.1
2.4 Data Processing & Simulation Services	2.4.2 Simulation Production	TUM	GR	MEIGHEN-BERGER, STEPHAN	Development of MCEq	Non-US In-Kind	0.3
2.4 Data Processing & Simulation Services	2.4.2 Simulation Production	UD	GR	REHMAN, ABDUL	Surface radio	NSF Base Grants	0.15
2.4 Data Processing & Simulation Services	2.4.2 Simulation Production	UD	PO	SOLDIN, DENNIS	IceCube/IceTop simulation production	NSF M&O Core	0.15
2.4 Data Processing & Simulation Services	2.4.2 Simulation Production	UMD	PO	LARSON, MICHAEL	Low Energy tools	NSF Base Grants	0.05
2.4 Data Processing & Simulation Services	2.4.2 Simulation Production	UMD	SC	BLAUFUSS, ERIK	Simulation production site manager	NSF Base Grants	0.1
2.4 Data Processing & Simulation Services	2.4.2 Simulation Production	UW	CS	EVANS, ERIC	Simulation production monitoring and validation	NSF M&O Core	0.4
2.4 Data Processing & Simulation Services	2.4.2 Simulation Production	UW	DS	DIAZ-VELEZ, JUAN CARLOS	Manage Centralized Simulation Production. Maintain, test and update physics aspects of the atmospheric muon and neutrino simulation	NSF M&O Core	0.4
2.4 Data Processing & Simulation Services	2.4.2 Simulation Production	UW	GR	GRIFFITH, ZACHARY	Gamma simulation production	NSF Base Grants	0.3
2.4 Data Processing & Simulation Services	2.4.2 Simulation Production	UW	GR	Leonard, Kayla	developing for MuonGun for low energies, simulations Oscnext	NSF Base Grants	0.3
2.4 Data Processing & Simulation Services	2.4.2 Simulation Production	UW	GR	WILLE, LOGAN	Simulation production for muon decay Glashow resonance events	US In-Kind	0.3

2.4 Data Processing & Simulation Services	2.4.2 Simulation Production	UW	SC	DESIATI, PAOLO	Simulation Production streamlining programs for the cloud, GPU	NSF M&O Core	0.3
2.4 Data Processing & Simulation Services	2.4.2 Simulation Production	UW	SC	DESIATI, PAOLO	Simulation Production Manager	NSF M&O Core	0.3
2.4 Data Processing & Simulation Services	2.4.2 Simulation Production	UW	SC	DESIATI, PAOLO	Simulation Production panel chair	US In-Kind	0.1
2.4 Data Processing & Simulation Services	2.4.3 Public Data Products	RWTH	GR	STETTNER, JÖRAN	Millipede scans for HE neutrinos	Non-US In-Kind	0.05
2.4 Data Processing & Simulation Services	2.4.3 Public Data Products	VUB	KE	VAN EIJNDHOVEN, NICK	Public data release	Non-US In-Kind	0.1
2.4 Data Processing & Simulation Services	2.4.3 Public Data Products	MIT	GR	DIAZ, ALEJANDRO	Organize and maintain BSM public data release page	US In-Kind	0.1
2.4 Data Processing & Simulation Services	2.4.3 Public Data Products	MSU	SC	WEAVER, CHRIS	Real-time alert software framework development	US In-Kind	0.1
2.5 Software	2.5.1 Core Software	ALBERTA	CS	RAJEWSKI, JAMIE	Updating and maintaining compatibility of tools	Non-US In-Kind	0.1
2.5 Software	2.5.1 Core Software	SU	GR	JANSSON, MATTI	Software strike team	Non-US In-Kind	0.2
2.5 Software	2.5.1 Core Software	TUM	GR	KARL, MARTINA	Software strike team	Non-US In-Kind	0.2
2.5 Software	2.5.1 Core Software	MSU	KE	WHITEHORN, NATHAN	Icetray framework maintenance	US In-Kind	0.05
2.5 Software	2.5.1 Core Software	OSU	GR	MEDINA, ANDRES	Software strike team	US In-Kind	0.25
2.5 Software	2.5.1 Core Software	UD	GR	REHMAN, ABDUL	Visualization software (Steamshovel)	NSF Base Grants	0.15
2.5 Software	2.5.1 Core Software	UD	PO	COLEMAN, ALAN	Software strike team	US In-Kind	0.1
2.5 Software	2.5.1 Core Software	UMD	CS	UMD CS	Maintain Core Software Repository	NSF M&O Core	0
2.5 Software	2.5.1 Core Software	UMD	PO	OLIVAS, ALEX	SW Coordinator – Core Software	NSF M&O Core	0.2
2.5 Software	2.5.1 Core Software	UMD	PO	OLIVAS, ALEX	Support Core Software	US In-Kind	0.05
2.5 Software	2.5.1 Core Software	UMD	SC	BLAUFUSS, ERIK	Support Core Software	NSF M&O Core	0.1
2.5 Software	2.5.2 Simulation Software	BOCHUM	KE	TJUS, JULIA	Development PROPOSAL simulation software	Non-US In-Kind	0.1
2.5 Software	2.5.2 Simulation Software	CHIBA	KE	YOSHIDA, SHIGERU	Maintain EHE related simulation projects (JULIeT and Weighting Module etc)	Non-US In-Kind	0.2
2.5 Software	2.5.2 Simulation Software	CHIBA	PO	Hill, Colton	Photonics long range spline table production	Non-US In-Kind	0.2
2.5 Software	2.5.2 Simulation Software	DESY	KE	VAN SANTEN, JAKOB	Software package maintenance	Non-US In-Kind	0.1
2.5 Software	2.5.2 Simulation Software	DTMND	GR	ALAMEDDINE, JEAN-MARCO	PROPOSAL-IceProd Integration and optimization	Non-US In-Kind	0.3
2.5 Software	2.5.2 Simulation Software	DTMND	GR	SOEDINGREKSO, JAN	PROPOSAL-IceProd Integration and optimization	Non-US In-Kind	0.5
2.5 Software	2.5.2 Simulation Software	ERLANGEN	GR	FIEDLSCHUSTER, SEBASTIAN	software development	Non-US In-Kind	0.2
2.5 Software	2.5.2 Simulation Software	ERLANGEN	GR	WREDE, GERRIT	Novel reconstruction algorithms	Non-US In-Kind	0.2
2.5 Software	2.5.2 Simulation Software	ERLANGEN	PO	GLÜSENKAMP, THORSTEN	Track/Cascade reconstruction and simulation / reconstruction WG lead	Non-US In-Kind	0.3
2.5 Software	2.5.2 Simulation Software	GENT	GR	VERPOEST, STEF	Investigations of thinning in simulation	Non-US In-Kind	0.05
2.5 Software	2.5.2 Simulation Software	KIT	PO	Alves Junior, Antonio Augusto	CORSIKA8 Simualtions	Non-US In-Kind	0.3
2.5 Software	2.5.2 Simulation Software	KIT	SC	WEINDL	Software surface	Non-US In-Kind	0.15
2.5 Software	2.5.2 Simulation Software	QUEEN'S	KE	CLARK, KENNETH	Low Energy Simulation Software updates	Non-US In-Kind	0.1
2.5 Software	2.5.2 Simulation Software	RWTH	GR	BOETTCHER, JAKOB	Monopole Noise Simulation Tool	Non-US In-Kind	0.05
2.5 Software	2.5.2 Simulation Software	RWTH	GR	GANSTER, ERIK	Snowstorm MC	Non-US In-Kind	0.2
2.5 Software	2.5.2 Simulation Software	RWTH	GR	SCHAUFEL, MERLIN	IceAct/IceCube/IceTop MonteCarlo	Non-US In-Kind	0.1
2.5 Software	2.5.2 Simulation Software	MIT	GR	DIAZ, ALEJANDRO	Development of GolemFit	US In-Kind	0.1
2.5 Software	2.5.2 Simulation Software	MIT	PO	VANNEROM, DAVID	Development of GolemFit	US In-Kind	0.1
2.5 Software	2.5.2 Simulation Software	MIT	PO	VANNEROM, DAVID	Extension of LeptonInjector to include Beyond Standard Model particles	US In-Kind	0.3
2.5 Software	2.5.2 Simulation Software	MSU	GR	HARNISCH, ALEXANDER	Implementation of BFRv1 ice model in clsim	NSF Base Grants	0.2
2.5 Software	2.5.2 Simulation Software	MSU	KE	KOPPER, CLAUDIO	Maintenance of clsim direct photon propagation tool	US In-Kind	0.1
2.5 Software	2.5.2 Simulation Software	ROCHESTER	GR	GRISWOLD, SPENCER	Supernova and transient simulations	US In-Kind	0.1
2.5 Software	2.5.2 Simulation Software	SUBR	KE	FAZELY, ALI	GEANT Simulation, Supernova Data Analysis	US In-Kind	0.15
2.5 Software	2.5.2 Simulation Software	SUBR	SC	XIANWU, XU	Simulation Programs	US In-Kind	0.15
2.5 Software	2.5.2 Simulation Software	UD	GR	PAUDEL, EK NARAYAN	Surface radio	US In-Kind	0.1
2.5 Software	2.5.2 Simulation Software	UD	PO	COLEMAN, ALAN	Simulation of surface enhancements	US In-Kind	0.2
2.5 Software	2.5.2 Simulation Software	UTA	GR	PARKER, GRANT	Development, testing and maintenance of GolemFit code	NSF Base Grants	0.1
2.5 Software	2.5.2 Simulation Software	UTA	GR	SMITHERS, BENJAMIN	LeptonInjector and SnowSuite development and maintenance	NSF Base Grants	0.25
2.5 Software	2.5.2 Simulation Software	UW	DS	DIAZ-VELEZ, JUAN CARLOS	Simulation software programs coordinator	NSF M&O Core	0.25
2.5 Software	2.5.2 Simulation Software	UW	DS	MEAGHER, KEVIN	Triggered CORSIKA maintenance and development	NSF M&O Core	0.75
2.5 Software	2.5.2 Simulation Software	UW	GR	SILVA, MANUEL	Muongun maintenance, upgrade	NSF M&O Core	0.25
2.5 Software	2.5.2 Simulation Software	UW	SC	CHIRKIN, DMITRY	Maintain and Verify Simulation of Photon Propagation and update Ice Properties	NSF M&O Core	0.3
2.5 Software	2.5.2 Simulation Software	UW	SC	HOSHINA, KOTOYO	nugen maintenance	NSF M&O Core	0.25
2.5 Software	2.5.3 Reconstruction	ADELAIDE	KE	HILL, GARY	Event energy and direction reconstruction, millipede	Non-US In-Kind	0.4

2.5 Software	2.5.3 Reconstruction	CHIBA	KE	ISHIHARA, AYA	Maintain Portia and the SC data filtering	Non-US In-Kind	0.15
2.5 Software	2.5.3 Reconstruction	CHIBA	KE	YOSHIDA, SHIGERU	EHE online pipeline for follow-up observations	Non-US In-Kind	0.15
2.5 Software	2.5.3 Reconstruction	CHIBA	PO	Meier, Maximilian	Maintain Combo for EHE simulations	Non-US In-Kind	0.2
2.5 Software	2.5.3 Reconstruction	DESY	GR	LAGUNAS GUALDA, CHRISTINA	Millipede systematic uncertainties	Non-US In-Kind	0.1
2.5 Software	2.5.3 Reconstruction	ERLANGEN	GR	SCHINDLER, SEBASTIAN	reconstruction tests	Non-US In-Kind	0.2
2.5 Software	2.5.3 Reconstruction	MAINZ	GR	WELDERT, JAN	freeDOM reconstruction	Non-US In-Kind	0.2
2.5 Software	2.5.3 Reconstruction	RWTH	GR	FÜRST, PHILIPP	New energy estimator for Muon reconstruction	Non-US In-Kind	0.05
2.5 Software	2.5.3 Reconstruction	RWTH	GR	PHILIPPEN, SASKIA	Moon analysis tool for reconstruction software	Non-US In-Kind	0.05
2.5 Software	2.5.3 Reconstruction	SU	GR	DEOSKAR, KUNAL	Event reconstruction, angular resolution	Non-US In-Kind	0.2
2.5 Software	2.5.3 Reconstruction	UC	PO	AARTSEN, MARK	Code maintenance (CLast)	Non-US In-Kind	0.05
2.5 Software	2.5.3 Reconstruction	UC	PO	AARTSEN, MARK	Cascade Spline Table tests (ongoing)	Non-US In-Kind	0.1
2.5 Software	2.5.3 Reconstruction	VUB	GR	COPPIN, PAUL	Maintenance of GRBWEB	Non-US In-Kind	0.1
2.5 Software	2.5.3 Reconstruction	VUB	KE	VAN EIJNDHOVEN, NICK	IcePack analysis software tools	Non-US In-Kind	0.25
2.5 Software	2.5.3 Reconstruction	GTECH	GR	CHEN, CHUJIE	Maintainer of Cramer-Rao	NSF Base Grants	0.1
2.5 Software	2.5.3 Reconstruction	LBNL	GR	LYU,YANG	Stochasticity and IceTop veto software, including for Real time alerts, starting track software	NSF Base Grants	0.1
2.5 Software	2.5.3 Reconstruction	MERCER	KE	MCNALLY, FRANK	IceTop energy reconstruction with CNNs, Processing Cosmic Ray Anisotropy Files	US In-Kind	0.1
2.5 Software	2.5.3 Reconstruction	MSU	GR	NOWICKI, SARAH	DirectReco software support	NSF Base Grants	0.2
2.5 Software	2.5.3 Reconstruction	MSU	PO	LUDWIG, ANDREW	Likelihood-based muon reconstruction development	US In-Kind	0.5
2.5 Software	2.5.3 Reconstruction	PSU	PO	FIENBERG, AARON	PISA Maintenance	NSF Base Grants	0.1
2.5 Software	2.5.3 Reconstruction	SBU	GR	ZHANG, ZELONG	Reconstruction tau, cascades	NSF Base Grants	0.1
2.5 Software	2.5.3 Reconstruction	SDSMT	GR	LEON SILVERIO, DIANA	Update the IceTop-InIce combined (3-D) reconstruction in the new RockBottom framework; Optimize the 3-D reconstruction; Study the detection of inclined air showers for IceCube surface extension/Gen2.	NSF Base Grants	0.7
2.5 Software	2.5.3 Reconstruction	SDSMT	KE	XINHUA, BAI	New reconstruction method; Study of high energy cosmic rays, high energy leptons with IceCube data	NSF Base Grants	0.3
2.5 Software	2.5.3 Reconstruction	SUBR	KE	FAZELY, ALI	Reconstruction/ Analysis tools, data analysis, Cloud Computation; High Energy Neutrino Nucleon Cross Section Measurement and Simulation	US In-Kind	0.15
2.5 Software	2.5.3 Reconstruction	SUBR	SC	XIANWU, XU	Reconstruction/ Analysis tools	US In-Kind	0.15
2.5 Software	2.5.3 Reconstruction	UAA	KE	RAWLINS, KATHERINE	Snow correction for IceTop	US In-Kind	0.2
2.5 Software	2.5.3 Reconstruction	UD	PO	SOLDIN, DENNIS	IceTop reco, Corsika reader	NSF Base Grants	0.15
2.5 Software	2.5.3 Reconstruction	UMD	PO	LARSON, MICHAEL	Neutrinos source WG technical lead software/likelihood	NSF Base Grants	0.2
2.5 Software	2.5.3 Reconstruction	UMD	PO	OLIVAS, ALEX	SW Coordinator – Data Quality, Reconstruction and Sim. Programs	NSF M&O Core	0.25
2.5 Software	2.5.3 Reconstruction	UW	DS	MEAGHER, KEVIN	Reconstruction software programs coordinator	NSF M&O Core	0.25
2.5 Software	2.5.3 Reconstruction	UW	GR	GRIFFITH, ZACHARY	Photon/hadron separation	NSF Base Grants	0.2
2.5 Software	2.5.3 Reconstruction	UW	GR	Lazar, Jeffrey	reconsructions Upfilter	NSF Base Grants	0.3
2.5 Software	2.5.3 Reconstruction	UW	GR	Liu, Qinrui	csky and skylab software, extensions of Firesong	NSF Base Grants	0.3
2.5 Software	2.5.3 Reconstruction	UW	GR	PIZZUTO, ALEX	Fast response analysis maintenance, SkyLab transients	US In-Kind	0.2
2.5 Software	2.5.3 Reconstruction	UW	SC	CHIRKIN, DMITRY	Reconstruction software	NSF M&O Core	0.15
2.5 Software	2.5.3 Reconstruction	UW	SC	YUAN, TIANLU	Impact of DOM response on reconstruction, cascade reconstruction at high energies	NSF Base Grants	0.3
2.5 Software	2.5.3 Reconstruction	UWRF	KE	SEUNARINE, SURUJ	Low-Energy Extensions of IceTop	US In-Kind	0.1
2.5 Software	2.5.3 Reconstruction	YALE	KE	MARUYAMA, REINA	Coincident events between IceCube and DM-Ice, low energy reconstruction	US In-Kind	0.05
2.5 Software	2.5.4 Science Support Tools	RWTH	GR	GANSTER, ERIK	NNMFIT tool for diffuse profile likelihood fits	Non-US In-Kind	0.2
2.5 Software	2.5.4 Science Support Tools	RWTH	GR	SCHUMACHER, LISA	NNMFIT tool for diffuse profile likelihood fits	Non-US In-Kind	0.05
2.5 Software	2.5.4 Science Support Tools	TUM	PO	NIEDERHAUSEN, HANS	Maintenance SkyLab, Development SkyLLH	Non-US In-Kind	0.2
2.5 Software	2.5.4 Science Support Tools	HARVARD	GR	SKRZYPEK, BARBARA	Maintenance and development of LeptonInjector	US In-Kind	0.1
2.5 Software	2.5.4 Science Support Tools	HARVARD	GR	SKRZYPEK, BARBARA	GolemFit framework development	US In-Kind	0.1
2.5 Software	2.5.4 Science Support Tools	HARVARD	KE	ARGUELLES, CARLOS	GolemFit framework development coordination	US In-Kind	0.1
2.5 Software	2.5.4 Science Support Tools	UA	KE	SANTANDER, MARCOS	Public alerts summary web page	US In-Kind	0.05
2.5 Software	2.5.4 Science Support Tools	UW	GR	Safa, Ibrahim	SkyLLH and PStracks	NSF Base Grants	0.3
2.5 Software	2.5.5 Software Development Infrastructure	UMD	CS	LADIEU, DON	Maintenance of DevOps systems, e.g. build, test coverage, CI/CD, VCS, and workflow policy	NSF M&O Core	0.75
2.6 Calibration	2.6.1 Detector Calibration	ALBERTA	KE	MOORE, ROGER	DOM efficiency with cosmic muons	Non-US In-Kind	0.1

2.6 Calibration	2.6.1 Detector Calibration	ALBERTA	KE	YANEZ, JUAN PABLO	New DOM efficiency study with muons	Non-US In-Kind	0.25
2.6 Calibration	2.6.1 Detector Calibration	ALBERTA	PO	MCELROY, THOMAS	DOM efficiency with cosmic muons	Non-US In-Kind	0.5
2.6 Calibration	2.6.1 Detector Calibration	HUMBOLDT	GR	HEBECKER, DUSTIN	Optical detector calibration	Non-US In-Kind	0.2
2.6 Calibration	2.6.1 Detector Calibration	RWTH	GR	PHILIPPEN, SASKIA	Geometry Calibration	Non-US In-Kind	0.1
2.6 Calibration	2.6.1 Detector Calibration	RWTH	GR	SCHAUFEL, MERLIN	IceTop & IceCube Calibration with IceAct	Non-US In-Kind	0.1
2.6 Calibration	2.6.1 Detector Calibration	SKKU	GR	JEONG, MINJIN	Online filter devel-opment & testing (Full Sky Starting Filter)	Non-US In-Kind	0.2
2.6 Calibration	2.6.1 Detector Calibration	SKKU	GR	JEONG, MINJIN	Dark Matter Flux Module - Add and maintain Dark Matter Decay	Non-US In-Kind	0.1
2.6 Calibration	2.6.1 Detector Calibration	SU	GR	JANSSON, MATTI	Geometry studies	Non-US In-Kind	0.2
2.6 Calibration	2.6.1 Detector Calibration	UC	GR	RAISSI, AMIR	Flasher Data Testing (learning)	Non-US In-Kind	0.15
2.6 Calibration	2.6.1 Detector Calibration	UU	KE	HALLGREN, ALLAN	Calibration WG co-chair	Non-US In-Kind	0.15
2.6 Calibration	2.6.1 Detector Calibration	KU	GR	MADISON, BRENDON	Development of four radio-frequency pulsers for IceCube upgrade	US In-Kind	0.15
2.6 Calibration	2.6.1 Detector Calibration	KU	GR	MAGNUSON, MITCH	Development of four radio-frequency pulsers for IceCube upgrade	US In-Kind	0.15
2.6 Calibration	2.6.1 Detector Calibration	KU	KE	BESSON, DAVE	Development of four radio-frequency pulsers for IceCube upgrade	US In-Kind	0.3
2.6 Calibration	2.6.1 Detector Calibration	MIT	GR	WEIGEL, PHILIP	Development of water tank for IceCube calibration	US In-Kind	0.1
2.6 Calibration	2.6.1 Detector Calibration	MSU	GR	SANCHEZ HERRERA, SEBASTIAN	Afterpulse characterization	NSF Base Grants	0.3
2.6 Calibration	2.6.1 Detector Calibration	UA	KE	WILLIAMS, DAWN	Baseline and charge harvesting and DOMCal	NSF M&O Core	0.1
2.6 Calibration	2.6.1 Detector Calibration	UA	KE	Williams, Dawn	SPE template harvesting	NSF M&O Core	0.1
2.6 Calibration	2.6.1 Detector Calibration	UW	GR	SAFA, IBRAHIM	IceTop maintenance, Scintillator project	US In-Kind	0.2
2.6 Calibration	2.6.1 Detector Calibration	UW	GR	TY, BUNHENG	PMT negative HV studies	US In-Kind	0.05
2.6 Calibration	2.6.1 Detector Calibration	UW	SC	TOSI, DELIA	Absolute DOM sensitivity calibration (laboratory measurements)	NSF M&O Core	0.15
2.6 Calibration	2.6.1 Detector Calibration	UW	SC	WENDT, CHRISTOPHER	Flasher output, flasher calibration	NSF M&O Core	0.4
2.6 Calibration	2.6.1 Detector Calibration	UW	SC	WENDT, CHRISTOPHER	DOM charge response, linearity, DOM calibration support	NSF M&O Core	0.4
2.6 Calibration	2.6.1 Detector Calibration	UWRF	KE	SEUNARINE, SURUJ	Calibration-Flasher Studies	US In-Kind	0.1
2.6 Calibration	2.6.2 Ice Properties	SKKU	GR	KANG, WOOSIK	Photon tracking / ice-properties calibration	Non-US In-Kind	0.2
2.6 Calibration	2.6.2 Ice Properties	SKKU	PO	TOENNIS, CHRISTOPH	Anisotropy Measurement with Spice hole camera	Non-US In-Kind	0.2
2.6 Calibration	2.6.2 Ice Properties	SKKU	PO	TOENNIS, CHRISTOPH	Dark Matter Flux Module - Add and maintain secluded DM	Non-US In-Kind	0.1
2.6 Calibration	2.6.2 Ice Properties	TUM	GR	HENNINGSEN, FELIX	Simulation / Calibration	Non-US In-Kind	0.1
2.6 Calibration	2.6.2 Ice Properties	TUM	GR	HOLZAPFEL, KILIAN	Simulation / Calibration/ IceCube Upgrade	Non-US In-Kind	0.1
2.6 Calibration	2.6.2 Ice Properties	WUPPERTAL	GR	HOFFMANN, RUTH	Acoustic and radio ice properties	Non-US In-Kind	0.2
2.6 Calibration	2.6.2 Ice Properties	UA	KE	WILLIAMS, DAWN	Supporting flasher runs and flasher analysis	US In-Kind	0.05
2.6 Calibration	2.6.2 Ice Properties	UD	KE	SECKEL, DAVID	Ice model, DOM noise	US In-Kind	0.05
2.6 Calibration	2.6.2 Ice Properties	UTA	GR	PARKER, GRANT	Continuing improvements to SnowStorm MC uncertainty	NSF Base Grants	0.5
2.6 Calibration	2.6.2 Ice Properties	UTA	GR	SMITHERS, BENJAMIN	SnowStorm extension to systematics including hole ice, anisotropy, etc.	NSF Base Grants	0.25
2.6 Calibration	2.6.2 Ice Properties	UTA	KE	JONES, BENJAMIN	Ice model uncertainty estimation using multisim MC method	US In-Kind	0.1
2.6 Calibration	2.6.2 Ice Properties	UW	EN	NUCKLES, JACK	Pencil beam, LED flasher support	NSF M&O Core	1
2.6 Calibration	2.6.2 Ice Properties	UW	SC	CHIRKIN, DMITRY	Direct photon tracking / ice- properties calibration , Individual DOM hole ice calibration	NSF Base Grants	0.55
2.6 Calibration	2.6.2 Ice Properties	UWRF	KE	SEUNARINE, SURUJ	Calibration-Flasher Studies	US In-Kind	0.1
Grand Total							**98.10**