

IceCube M&O Staffing Matrix sort by WBS v16.1 2014.0331

WBS L2	WBS L3	US / Non US	Institution	Labor Cat.	Names	Tasks	Source of Funds (U.S. Only)	NSF M&O Core	NSF Base Grants	U.S. Institutional In-Kind	Europe & Asia Pacific In-Kind	Grand Total
2.1 Program Management	2.1.1 Administration	US	LBNL	KE	KLEIN,SPENCER	Supervise LBNL effort	NSF M&O Core	0.05				0.05
2.1 Program Management	2.1.1 Administration	US	LBNL	KE	KLEIN,SPENCER	Pubcom member	US In-Kind			0.10		0.10
2.1 Program Management	2.1.1 Administration	US	UWRF	KE	MADSEN, JIM	Speakers Comm Chair	US In-Kind			0.25		0.25
2.1 Program Management	2.1.1 Administration	US	PSU	KE	DEYOUNG, TYCE	Deputy Spokesperson	US In-Kind			0.20		0.20
2.1 Program Management	2.1.1 Administration	US	UCB	SC	FILIMONOV, KIRILL	Pubcom member	Base Grants		0.10			0.10
2.1 Program Management	2.1.1 Administration	US	UCB	SC	WOSCHNAGG, KURT	Speakers Comm member	Base Grants		0.10			0.10
2.1 Program Management	2.1.1 Administration	US	UCB	SC	WOSCHNAGG, KURT	Pubcom member	Base Grants		0.10			0.10
2.1 Program Management	2.1.1 Administration	US	UD	KE	GAISSER, TOM	ExecCom member	US In-Kind			0.20		0.20
2.1 Program Management	2.1.1 Administration	US	UD	KE	STANEV, TODOR	Pubcom member	US In-Kind			0.10		0.10
2.1 Program Management	2.1.1 Administration	US	UMD	KE	SULLIVAN, GREG	ExecCom member	US In-Kind			0.20		0.20
2.1 Program Management	2.1.1 Administration	US	UMD	KE	SULLIVAN, GREG	M&O/Upgrade planning	US In-Kind			0.30		0.30
2.1 Program Management	2.1.1 Administration	US	UMD	SC	BLAUFUSS, ERIK	Analysis Coordinator	US In-Kind			0.40		0.40
2.1 Program Management	2.1.1 Administration	US	UMD	SC	OLIVAS, ALEX	IceCube Weekly call coordination	US In-Kind			0.20		0.20
2.1 Program Management	2.1.1 Administration	US	UMD	PO	WISSING, HENRIKE	Pubcom member	Base Grants		0.10			0.10
2.1 Program Management	2.1.1 Administration	US	SBU	KE	KIRYLUK,JOANNA	Simulation Prod. Comm member	US In-Kind			0.05		0.05
2.1 Program Management	2.1.1 Administration	US	UW	KE	HALZEN, FRANCIS	Principle Investigator	NSF M&O Core	0.35				0.35
2.1 Program Management	2.1.1 Administration	US	UW	KE	HALZEN, FRANCIS	Principle Investigator	US In-Kind			0.15		0.15
2.1 Program Management	2.1.1 Administration	US	UW	KE	KARLE, ALBRECHT	Associate Director for Science	NSF M&O Core	0.25				0.25
2.1 Program Management	2.1.1 Administration	US	UW	KE	KARLE, ALBRECHT	Coordination Committee chair	NSF M&O Core	0.10				0.10
2.1 Program Management	2.1.1 Administration	US	UW	KE	KARLE, ALBRECHT	ExecCom member	US In-Kind			0.20		0.20
2.1 Program Management	2.1.1 Administration	US	UW	KE	VANDENBROUCKE, JUSTIN	Pubcom member	US In-Kind			0.10		0.10
2.1 Program Management	2.1.1 Administration	US	UW	KE	UW Manager	Director of Operations (TBD)	NSF M&O Core	0.38				0.38
2.1 Program Management	2.1.1 Administration	US	UW	MA	MERINO, GONZALO	Computing Infrastructure Manager	NSF M&O Core	1.00				1.00
2.1 Program Management	2.1.1 Administration	US	UW	MA	PELES, ADI	Resource Coordinator	NSF M&O Core	0.50				0.50
2.1 Program Management	2.1.1 Administration	US	UW	AD	VAKHNINA, CATHERINE	Deputy Resource Coordinator	NSF M&O Core	0.50				0.50
2.1 Program Management	2.1.1 Administration	US	US Total					3.13	0.40	2.45		5.98
2.1 Program Management	2.1.1 Administration	Non-US	ALBERTA	KE	GRANT, DARREN	Pubcom adjoint member	Non-US In-kind				0.10	0.10
2.1 Program Management	2.1.1 Administration	Non-US	ALBERTA	AD	ALBERTA AD	Host the 2014 Spring Collaboration Meeting	Non-US In-kind				0.20	0.20
2.1 Program Management	2.1.1 Administration	Non-US	DESY	KE	ACKERMANN, MARKUS	ExecCom member	Non-US In-kind				0.20	0.20
2.1 Program Management	2.1.1 Administration	Non-US	DPNC	KE	MONTARULI, TERESA	ICB Member	Non-US In-kind				0.10	0.10
2.1 Program Management	2.1.1 Administration	Non-US	ERLANGEN	KE	KAPPES, ALEXANDER	Pubcom Chair	Non-US In-kind				0.25	0.25
2.1 Program Management	2.1.1 Administration	Non-US	ERLANGEN	KE	KAPPES, ALEXANDER	ExecCom member	Non-US In-kind				0.20	0.20
2.1 Program Management	2.1.1 Administration	Non-US	SU	KE	FINLEY, CHAD	ICB Member	Non-US In-kind				0.05	0.05
2.1 Program Management	2.1.1 Administration	Non-US	SU	KE	HULTQVIST, KLAS	ICB Member	Non-US In-kind				0.05	0.05
2.1 Program Management	2.1.1 Administration	Non-US	SU	KE	FINLEY, CHAD SU	Coordination with LIGO	Non-US In-kind				0.10	0.10
2.1 Program Management	2.1.1 Administration	Non-US	SU	KE	WALCK, CHRISTIAN	Publications Bookkeeping	Non-US In-kind				0.10	0.10
2.1 Program Management	2.1.1 Administration	Non-US	UC	KE	ADAMS, JENNI	ICB Member	Non-US In-kind				0.05	0.05
2.1 Program Management	2.1.1 Administration	Non-US	ULB	KE	HANSON, Kael	ExecCom member	Non-US In-kind				0.20	0.20
2.1 Program Management	2.1.1 Administration	Non-US	UU	KE	BOTNER, OLGA	Spokesperson	Non-US In-kind				0.30	0.30
2.1 Program Management	2.1.1 Administration	Non-US	UU	KE	BOTNER, OLGA	ExecCom member	Non-US In-kind				0.20	0.20
2.1 Program Management	2.1.1 Administration	Non-US	UU	KE	DE LOS HEROS, CARLOS	Pubcom member	Non-US In-kind				0.10	0.10
2.1 Program Management	2.1.1 Administration	Non-US	UU	KE	HALLGREN, ALLAN	Speakers Comm member	Non-US In-kind				0.10	0.10
2.1 Program Management	2.1.1 Administration	Non-US	VUB	KE	DE CLERCQ, CATHERINE	Institutional Lead	Non-US In-kind				0.20	0.20
2.1 Program Management	2.1.1 Administration	Non-US	WUPPERTAL	KE	HELBING, KLAUS	Speakers Comm member	Non-US In-kind				0.10	0.10
2.1 Program Management	2.1.1 Administration	Non-US	RWTH	KE	WIEBUSCH, CHRISTOPHER	ExecCom member	Non-US In-kind				0.20	0.20
2.1 Program Management	2.1.1 Administration	Non-US	RWTH	KE	WIEBUSCH, CHRISTOPHER	Pubcom member	Non-US In-kind				0.10	0.10
2.1 Program Management	2.1.1 Administration	Non-US	MAINZ	KE	KOPKE, LUTZ	Supernova group Co-Chair	Non-US In-kind				0.25	0.25
2.1 Program Management	2.1.1 Administration	Non-US	BOCHUM	KE	TJUS, JULIA	Pubcom member	Non-US In-kind				0.10	0.10
2.1 Program Management	2.1.1 Administration	Non-US	Non-US Total								3.25	3.25
2.1 Program Management	2.1.1 Administration	WBS L3 1						3.13	0.40	2.45	3.25	9.23

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2.1 Program Management	2.1.2 Engineering And R&D Support	US	PSU	KE	COWEN, DOUG	PINGU Co-Lead	US In-Kind			0.35		0.35
2.1 Program Management	2.1.2 Engineering And R&D Support	US	OSU	KE	BEATTY, JAMES	PINGU Electronics and Calibration Development	US In-Kind			0.10		0.10
2.1 Program Management	2.1.2 Engineering And R&D Support	US	OSU	PO	ANDERSON, TYLER	PINGU Electronics and Calibration Development	US In-Kind			0.25		0.25
2.1 Program Management	2.1.2 Engineering And R&D Support	US	UMD	KE	HOFFMAN, KARA	Detector R&D	US In-Kind			0.20		0.20
2.1 Program Management	2.1.2 Engineering And R&D Support	US	UW	SC	DUVERNOIS, MICHAEL	Specialized simulations, designing new filters, unusual data selections, extracting specialized information	NSF M&O Core	0.25				0.25
2.1 Program Management	2.1.2 Engineering And R&D Support	US	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				0.25
2.1 Program Management	2.1.2 Engineering And R&D Support	US	UW	EN	LAUNDRIE, ANDREW	Engineering Support: IceCube Lab Summer operations, cabling, & instrumentation testing	NSF M&O Core	0.80				0.80
2.1 Program Management	2.1.2 Engineering And R&D Support	US	UW	EN	SANDSTROM, PERRY	Ongoing EMI studies & mitigation, South Pole & Northern test site instrumentation, In-field work	NSF M&O Core	0.15				0.15
2.1 Program Management	2.1.2 Engineering And R&D Support	US	UW	EN	SANDSTROM, PERRY	Engineering Support: IceCube Lab Summer operations, fieldwork management, design of the pDOM, GPS maintenance	NSF M&O Core	0.75				0.75
2.1 Program Management	2.1.2 Engineering And R&D Support	US	UW	MA	HAUGEN, JAMES	Engineering Support: logistics, northern hemisphere testing, & vendor management	NSF M&O Core	0.55				0.55
		US		US Total				2.75	0.00	0.90		3.65
2.1 Program Management	2.1.2 Engineering And R&D Support	Non-US	DESY	KE	NAHNHAUER, ROLF	Acoustic R&D Support PINGU R&D	Non-US In-kind				0.10	0.10
2.1 Program Management	2.1.2 Engineering And R&D Support	Non-US	DESY	PO	KARG, TIMO	Acoustic R&D Support PINGU R&D	Non-US In-kind				0.10	0.10
2.1 Program Management	2.1.2 Engineering And R&D Support	Non-US	DESY	GR	BRETZ, HANS-PETER	PINGU calibration studies	Non-US In-kind				0.10	0.10
2.1 Program Management	2.1.2 Engineering And R&D Support	Non-US	ALBERTA	KE	GRANT, DARREN	PINGU Co-Lead	Non-US In-kind				0.10	0.10
2.1 Program Management	2.1.2 Engineering And R&D Support	Non-US	BONN	PO	BOSSER, SEBASTIAN	PINGU R&D and software coordinator	Non-US In-kind				0.20	0.20
2.1 Program Management	2.1.2 Engineering And R&D Support	Non-US	RWTH	PO	AUFFENBERG, JAN	Surface Veto, IceCube extensions	Non-US In-kind				0.30	0.30
2.1 Program Management	2.1.2 Engineering And R&D Support	Non-US	RWTH	GR	HEINEN, DIRK	Acoustic R&D Support	Non-US In-kind				0.10	0.10
2.1 Program Management	2.1.2 Engineering And R&D Support	Non-US	SKKU	PO	BOSE, DEBANJAN	Reconstruction tools for PINGU	Non-US In-kind				0.15	0.15
2.1 Program Management	2.1.2 Engineering And R&D Support	Non-US	ULB	KE	HANSON, KAELE	EMI Measurements	Non-US In-kind				0.10	0.10
2.1 Program Management	2.1.2 Engineering And R&D Support	Non-US	ULB	PO	O'MURCHADHA, AONGUS	EMI Measurements	Non-US In-kind				0.10	0.10
2.1 Program Management	2.1.2 Engineering And R&D Support	Non-US	ULB	GR	MEURES, THOMAS	EMI Measurements	Non-US In-kind				0.25	0.25
2.1 Program Management	2.1.2 Engineering And R&D Support	Non-US	GENT	SC	UGENT SC	Acoustic R&D Support	Non-US In-kind				0.05	0.05
2.1 Program Management	2.1.2 Engineering And R&D Support	Non-US	GENT	GR	UGENT GR	Acoustic R&D Support	Non-US In-kind				0.05	0.05
		Non-US		Non-US Total							1.70	1.70
		2.1.2 Engineering And R&D Support		WBS L3 1				2.75	0.00	0.90	1.70	5.35
2.1 Program Management	2.1.3 Usap Support	US	UW	MA	HAUGEN, JAMES	USAP Support: yearly sip, coordination with contractor (ASC)	NSF M&O Core	0.25				0.25
		US		US Total				0.25				0.25
		2.1.3 Usap Support		WBS L3 1				0.25				0.25
2.1 Program Management	2.1.4 Education & Outreach	US	PSU	KE	COWEN, DOUG	Education & Outreach	US In-Kind			0.05		0.05
2.1 Program Management	2.1.4 Education & Outreach	US	PSU	KE	DEYOUNG, TYCE	Education & Outreach	US In-Kind			0.05		0.05
2.1 Program Management	2.1.4 Education & Outreach	US	UCB	KE	PRICE, BUFORD	Education & Outreach	US In-Kind			0.10		0.10
2.1 Program Management	2.1.4 Education & Outreach	US	UMD	KE	UMD KE	Education & Outreach	US In-Kind			0.10		0.10
2.1 Program Management	2.1.4 Education & Outreach	US	UW	AD	Bacque, Laurel	Education & Outreach Coordination	NSF M&O Core	0.50				0.50
2.1 Program Management	2.1.4 Education & Outreach	US	UW	AD	BRAVO GALLART, SILVIA	Education & Outreach	NSF M&O Core	0.25				0.25
2.1 Program Management	2.1.4 Education & Outreach	US	UW	AD	Madsen, Megan	Education & Outreach Coordination	NSF M&O Core	0.75				0.75
2.1 Program Management	2.1.4 Education & Outreach	US	UWRF	KE	MADSEN, JIM	Teachers program and UWF Upward Bound	NSF M&O Core	0.10				0.10
2.1 Program Management	2.1.4 Education & Outreach	US	UWRF	AD	UWRF AD	Teachers Program	NSF M&O Core	0.10				0.10
		US		US Total				1.70	0.00	0.30		2.00
2.1 Program Management	2.1.4 Education & Outreach	Non-US	JU	KE	HALLGREN, ALLAN	Education & Outreach	Non-US In-kind				0.05	0.05
2.1 Program Management	2.1.4 Education & Outreach	Non-US	JU	KE	BOTNER, OLGA	Education & Outreach	Non-US In-kind				0.05	0.05
2.1 Program Management	2.1.4 Education & Outreach	Non-US	SU	KE	HULTH, PER OLOF	Organisation of outreach events in Stockholm	Non-US In-kind				0.05	0.05
2.1 Program Management	2.1.4 Education & Outreach	Non-US	SKKU	KE	ROTT, CARSTEN	Education & Outreach	Non-US In-kind				0.05	0.05
		Non-US		Non-US Total							0.20	0.20
		2.1.4 Education & Outreach		WBS L3 1				1.70	0.00	0.30	0.20	2.20
		2.1 Program Management		WBS L2 Total				6.13	0.40	3.35	5.15	15.03

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2.2 Detector Operations & Maintenance	2.2 Detector Operations & Maintenance	US	LBNL	KE	NYGREN, DAVID R	Track Engine Trigger	US In-Kind			0.10		0.10
2.2 Detector Operations & Maintenance	2.2 Detector Operations & Maintenance	US	UW	SC	KELLEY, JOHN	Detector Maintenance and Operations Manager	NSF M&O Core	0.75				0.75
2.2 Detector Operations & Maintenance	2.2 Detector Operations & Maintenance	US	UMD	SC	OLIVAS, ALEX	Support Detector M&O	NSF M&O Core			0.40		0.40
2.2 Detector Operations & Maintenance	2.2 Detector Operations & Maintenance	US	US Total					0.75	0.00	0.50		1.25
2.2 Detector Operations & Maintenance	2.2 Detector Operations & Maintenance	Non-US	UMH	GR	KOHNNEN, GEORGES	Database Coordinator	Non-US In-kind				0.10	0.10
2.2 Detector Operations & Maintenance	2.2 Detector Operations & Maintenance	Non-US	Non-US Total								0.10	0.10
2.2 Detector Operations & Maintenance	2.2 Detector Operations & Maintenance	WBS L3 Total						0.75	0.00	0.50	0.10	1.35
2.2 Detector Operations & Maintenance	2.2.1 Run Coordination	US	UW	IT	Auer, Ralf	Winterovers coordinator, hiring and training of winterovers	NSF M&O Core	0.25				0.25
2.2 Detector Operations & Maintenance	2.2.1 Run Coordination	US	UW	PO	KAUER, MATTHEW	Run Coordinator	NSF M&O Core	0.50				0.50
2.2 Detector Operations & Maintenance	2.2.1 Run Coordination	US	UW	WO	UW Winter Overs	Operate Detector (Winter-Overs)	NSF M&O Core	3.00				3.00
2.2 Detector Operations & Maintenance	2.2.1 Run Coordination	US	US Total					3.75	0.00	0.00		3.75
2.2 Detector Operations & Maintenance	2.2.1 Run Coordination	Non-US	UC	GR	UC GR	Flasher Runs	Non-US In-kind				0.10	0.10
2.2 Detector Operations & Maintenance	2.2.1 Run Coordination	Non-US	Non-US Total								0.10	0.10
2.2 Detector Operations & Maintenance	2.2.1 Run Coordination	WBS L3 Total						3.75	0.00	0.00	0.10	3.85
2.2 Detector Operations & Maintenance	2.2.2 Data Acquisition	US	LBNL	EN	STEZELBERGER, THORSTEN	Maintain DAQ Hardware (Hubs, DOR, Clocks, GPS,...)	NSF M&O Core	0.15				0.15
2.2 Detector Operations & Maintenance	2.2.2 Data Acquisition	US	UD	KE	SECKEL, DAVID	DAQ Monitoring	US In-Kind			0.05		0.05
2.2 Detector Operations & Maintenance	2.2.2 Data Acquisition	US	UW	SC	KELLEY, JOHN	DOM Cal Maintenance, DOM issues	NSF M&O Core	0.15				0.15
2.2 Detector Operations & Maintenance	2.2.2 Data Acquisition	US	UW	CS	Frere, Michael	Maintain DAQ Software Systems (IceCube Live) and track changes with time in the detector	NSF M&O Core	1.00				1.00
2.2 Detector Operations & Maintenance	2.2.2 Data Acquisition	US	UW	CS	GLOWACKI, DAVID	Maintain DAQ Software Systems (incl. triggers, up to Event Builder) and track changes with time in the detector	NSF M&O Core	1.00				1.00
2.2 Detector Operations & Maintenance	2.2.2 Data Acquisition	US	UW	CS	UW CS	Maintain DAQ Software Systems experiment control and monitoring, DOM and DOMhub software) and track changes with time in the detector	NSF M&O Core	0.75				0.75
2.2 Detector Operations & Maintenance	2.2.2 Data Acquisition	US	UW	CS	UW CS	Maintain low-level DAQ software (DOR device driver, DOM software)	NSF M&O Core	0.15				0.15
2.2 Detector Operations & Maintenance	2.2.2 Data Acquisition	US	UW	GR	WEAVER, CHRISTOPHER	DOM CAL Maintenance	Base Grants		0.20			0.20
2.2 Detector Operations & Maintenance	2.2.2 Data Acquisition	US	US Total					3.20	0.20	0.05		3.45
2.2 Detector Operations & Maintenance	2.2.2 Data Acquisition	Non-US	ULB	KE	HANSON, KAE	Data Acquisition	Non-US In-kind				0.20	0.20
2.2 Detector Operations & Maintenance	2.2.2 Data Acquisition	Non-US	ULB	GR	HEEREMAN, DAVID	Develop Hit Spooling for Supernova & others	Non-US In-kind				0.50	0.50
2.2 Detector Operations & Maintenance	2.2.2 Data Acquisition	Non-US	ULB	GR	DeVasseige, Gwen	Detector Noise Studies	Non-US In-kind				0.10	0.10
2.2 Detector Operations & Maintenance	2.2.2 Data Acquisition	Non-US	ULB	GR	PINAT, ELISA	Data Acquisition	Non-US In-kind				0.20	0.20
2.2 Detector Operations & Maintenance	2.2.2 Data Acquisition	Non-US	Non-US Total								1.00	1.00
2.2 Detector Operations & Maintenance	2.2.2 Data Acquisition	WBS L3 Total						3.20	0.20	0.05	1.00	4.45
2.2 Detector Operations & Maintenance	2.2.3 Online Filter (Pnf)	US	UMD	SC	BLAUFUSS, ERIK	Maintain PnF S/W and Online Filters	NSF M&O Core	0.20				0.20
2.2 Detector Operations & Maintenance	2.2.3 Online Filter (Pnf)	US	UMD	CS	Schmidt, Torsten	Maintain PnF Software and Online Filters	NSF M&O Core	0.30				0.30
2.2 Detector Operations & Maintenance	2.2.3 Online Filter (Pnf)	US	UMD	GR	RICHTMAN, MIKE	Online Filter Testing	Base Grants		0.13			0.13
2.2 Detector Operations & Maintenance	2.2.3 Online Filter (Pnf)	US	US Total					0.50	0.13	0.00		0.63
2.2 Detector Operations & Maintenance	2.2.3 Online Filter (Pnf)	WBS L3 Total						0.50	0.13	0.00		0.63
2.2 Detector Operations & Maintenance	2.2.4 Sps Operations	US	UW	IT	Auer, Ralf	Maintain South Pole Computing H/W Infrastructure and operating systems	NSF M&O Core	0.50				0.50
2.2 Detector Operations & Maintenance	2.2.4 Sps Operations	US	UW	IT	WISNIEWSKI, PAUL	Networking and Security Maintenance	NSF M&O Core	0.25				0.25
2.2 Detector Operations & Maintenance	2.2.4 Sps Operations	US	US Total					0.75	0.00	0.00		0.75
2.2 Detector Operations & Maintenance	2.2.4 Sps Operations	WBS L3 Total						0.75	0.00	0.00		0.75
2.2 Detector Operations & Maintenance	2.2.5 Spts Operations	US	UW	IT	Auer, Ralf	Maintain South Pole Computing H/W Infrastructure and operating systems	NSF M&O Core	0.25				0.25
2.2 Detector Operations & Maintenance	2.2.5 Spts Operations	US	US Total					0.25	0.00	0.00	0.00	0.25
2.2 Detector Operations & Maintenance	2.2.5 Spts Operations	WBS L3 Total						0.25	0.00	0.00		0.25
2.2 Detector Operations & Maintenance	2.2.6 Experiment Control	US	UW	CS	UW CS	IceCube Live Maintenance and Upgrades	NSF M&O Core	0.65				0.65
2.2 Detector Operations & Maintenance	2.2.6 Experiment Control	US	US Total					0.65	0.00	0.00		0.65
2.2 Detector Operations & Maintenance	2.2.6 Experiment Control	WBS L3 Total						0.65	0.00	0.00		0.65
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	US	CAU	KE	JAPARIDZE, GEORGE	Monitoring shifts	US In-Kind			0.02		0.02
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	US	GTECH	GR	CASEY, JAMES	Monitoring shifts	Base Grants		0.03			0.03
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	US	KU	KE	BESSON, DAVE	Monitoring shifts	US In-Kind			0.02		0.02
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	US	SBU	KE	KIRYLK, JOANNA	BadDomList	US In-Kind			0.05		0.05
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	US	SBU	PO	LESIAK-BZDAK, MARIOLA	Detector Monitoring	Base Grants		0.05			0.05
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	US	LBNL	PO	CHANG, HYON HA	Monitoring shifts	Base Grants		0.09			0.09
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	US	PSU	PO	ARLEN, TIM	Monitoring shifts	Base Grants		0.03			0.03
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	US	PSU	GR	DUNKMAN, MATT	Monitoring shifts	Base Grants		0.03			0.03
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	US	SUBR	KE	TER-ANTONYAN, SAMVEL	Detector Monitoring	US In-Kind			0.02		0.02
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	US	UA	PO	PALCZEWSKI, TOMASZ	Monitoring shifts	Base Grants		0.05			0.05
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	US	UA	PO	PALCZEWSKI, TOMASZ	Moni 2.0 development	Base Grants		0.05			0.05
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	US	UAA	KE	RAWLINS, KATHERINE	Monitoring shifts	US In-Kind			0.02		0.02

IceCube M&O Staffing Matrix sort by WBS v16.1 2014.0331

WBS L2	WBS L3	US / Non US	Institution	Labor Cat.	Names	Tasks	Source of Funds (U.S. Only)	NSF M&O Core	NSF Base Grants	U.S. Institutional In-Kind	Europe & Asia Pacific In-Kind	Grand Total
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	US	UCB	SC	FILIMONOV, KIRILL	Coordinate Monitoring	Base Grants		0.25			0.25
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	US	UCB	SC	FILIMONOV, KIRILL	Coordinate Monitoring	NSF M&O Core	0.25				0.25
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	US	UCB	SC	UCB SC	Monitoring shifts	Base Grants		0.02			0.02
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	US	UCI	PO	SILVERSTRI, ANDREA	Monitoring shifts	US In-Kind			0.01		0.01
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	US	UCI	GR	HANSON, JORDAN	Monitoring shifts	US In-Kind			0.01		0.01
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	US	UMD	GR	UMD GR	Monitoring shifts	Base Grants		0.06			0.06
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	US	UW	PO	UW PO	Monitoring shifts	Base Grants		0.12			0.12
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	US	UW	GR	UW GR	Monitoring shifts	Base Grants		0.12			0.12
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	US	US Total					0.25	0.90	0.14		1.29
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	CHIBA	GR	CHIBA GR	Detector Monitoring	Non-US In-kind				0.03	0.03
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	DESY	SC	DESY SC	Detector Monitoring	Non-US In-kind				0.05	0.05
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	DESY	GR	DESY GR	Detector Monitoring	Non-US In-kind				0.12	0.12
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	DTMND	GR	DTMD GR	Detector Monitoring	Non-US In-kind				0.03	0.03
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	TUM	GR	MPI GR	Detector Monitoring	Non-US In-kind				0.05	0.05
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	RWTH	GR	BLUMENTHAL, JAN	Monitoring contact	Non-US In-kind				0.05	0.05
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	RWTH	GR	PAUL, LARRISA	RASTA Data Monitoring	Non-US In-kind				0.10	0.10
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	RWTH	GR	RWTH GR	Monitoring (4 weeks)	Non-US In-kind				0.12	0.12
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	SKKU	GR	JEONG, DONGVOUNG	Detector Monitoring	Non-US In-kind				0.03	0.03
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	SU	KE	HULTH, PER OLOF	IceCube camera system events in Stockholm	Non-US In-kind				0.10	0.10
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	SU	GR	SU GR	Detector Monitoring	Non-US In-kind				0.06	0.06
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	UC	KE	ADAMS, JENNI	Detector Monitoring	Non-US In-kind				0.05	0.05
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	ULB	GR	ULB GR	Detector Monitoring	Non-US In-kind				0.06	0.06
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	UOX	KE	SARKAR, SUBIR	Detector Monitoring	Non-US In-kind				0.02	0.02
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	UU	GR	STROM, RICKARD	Monitoring Shifts	Non-US In-kind				0.03	0.03
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	UU	GR	UNGER, LISA	Tools development	Non-US In-kind				0.10	0.10
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	UU	GR	TAAVOLA, HENRIC	Monitoring Shifts	Non-US In-kind				0.03	0.03
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	VUB	PO	VUB PO	Monitoring shifts	Non-US In-kind				0.06	0.06
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	VUB	GR	VUB GR	Monitoring shifts	Non-US In-kind				0.06	0.06
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	WUPPERTAL	GR	WUPPERTAL GR	South Pole EMI Monitoring	Non-US In-kind				0.15	0.15
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	WUPPERTAL	GR	WUPPERTAL GR	SPATS	Non-US In-kind				0.35	0.35
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	MAINZ	GR	UM GR	Detector Monitoring	Non-US In-kind				0.05	0.05
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	GENT	GR	UGENT GR	Detector Monitoring	Non-US In-kind				0.03	0.03
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	DPNC	GR	ASEN, CHRISTOV	Detector Monitoring	Non-US In-kind				0.10	0.10
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	DPNC	GR	RAAMEZ MOHAMED	Detector Monitoring	Non-US In-kind				0.10	0.10
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	BONN	GR	UBONN GR	Detector Monitoring	Non-US In-kind				0.05	0.05
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	BONN	PO	BOSSER, SEBASTIAN	Monitoring development	Non-US In-kind				0.20	0.20
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	BOCHUM	GR	SABA, ISAAC	Detector Monitoring	Non-US In-kind				0.03	0.03
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	NBI	GR	LARSON, MICHAEL	Monitoring shifts	Non-US In-kind				0.03	0.03
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	NBI	GR	MEDICI, MORTEN	Monitoring shifts	Non-US In-kind				0.03	0.03
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	Non-US	Non-US Total								2.27	2.27
2.2 Detector Operations & Maintenance	2.2.7 Detector Monitoring	WBS L3						0.25	0.90	0.14	2.27	3.56
2.2 Detector Operations & Maintenance	2.2.8 Detector Calibration	US	GTECH	GR	CASEY, JAMES	Bubble studies with flashers	Base Grants		0.20			0.20
2.2 Detector Operations & Maintenance	2.2.8 Detector Calibration	US	UA	KE	WILLIAMS, DAWN	managing flasher runs coordinating low level calibration effort	NSF M&O Core	0.20				0.20
2.2 Detector Operations & Maintenance	2.2.8 Detector Calibration	US	UA	PO	PALCZEWSKI, TOMASZ	SPE recalibration	Base Grants		0.05			0.05
2.2 Detector Operations & Maintenance	2.2.8 Detector Calibration	US	UA	GR	XU, DONGLIAN	Low-energy cascade calibration with flashers	Base Grants		0.10			0.10
2.2 Detector Operations & Maintenance	2.2.8 Detector Calibration	US	UA	GR	PEPPER, JAMES	IceCube Live C&V	Base Grants		0.05			0.05
2.2 Detector Operations & Maintenance	2.2.8 Detector Calibration	US	UW	SC	WENDT, CHRISTOPHER	Absolute DOM sensitivity	NSF M&O Core	0.40				0.40
2.2 Detector Operations & Maintenance	2.2.8 Detector Calibration	US	UW	SC	WENDT, CHRISTOPHER	Flasher output, flasher calibration	NSF M&O Core	0.20				0.20
2.2 Detector Operations & Maintenance	2.2.8 Detector Calibration	US	UW	SC	WENDT, CHRISTOPHER	DOM charge response, linearity, DOM calibration support	NSF M&O Core	0.20				0.20
2.2 Detector Operations & Maintenance	2.2.8 Detector Calibration	US	UW	GR	FEINTZIG, JACOB	Ice Properties	Base Grants		0.10			0.10
2.2 Detector Operations & Maintenance	2.2.8 Detector Calibration	US	UW	GR	JERO, KYLE	DOM Linearity, sensitivity	Base Grants		0.15			0.15
2.2 Detector Operations & Maintenance	2.2.8 Detector Calibration	US	US Total					1.00	0.65	0.00		1.65
2.2 Detector Operations & Maintenance	2.2.8 Detector Calibration	Non-US	DESY	GR	STOESSL, ACHIM	Flasher Analysis	Non-US In-kind				0.20	0.20
2.2 Detector Operations & Maintenance	2.2.8 Detector Calibration	Non-US	Non-US Total								0.20	0.20
2.2 Detector Operations & Maintenance	2.2.8 Detector Calibration	WBS L3						1.00	0.65	0.00	0.20	1.85
2.2 Detector Operations & Maintenance	2.2.9 Ictop Operations	US	UD	SC	TILAV, SERAP	Coordinate IceTop Operations	NSF M&O Core	1.00				1.00
2.2 Detector Operations & Maintenance	2.2.9 Ictop Operations	US	US Total					1.00	0.00	0.00		1.00
2.2 Detector Operations & Maintenance	2.2.9 Ictop Operations	WBS L3						1.00	0.00	0.00	0.00	1.00
2.2 Detector Operations & Maintenance	2.2.10 Supernova Operations	US	UW	GR	RIEDEL, BENEDIKT	Supernova DAQ	Base Grants		0.15			0.15
2.2 Detector Operations & Maintenance	2.2.10 Supernova Operations	US	US Total					0.00	0.15	0.00	0.00	0.15
2.2 Detector Operations & Maintenance	2.2.10 Supernova Operations	Non-US	MAINZ	GR	KROLL, GÖSTA	SuperNova Operations	Non-US In-kind				0.10	0.10
2.2 Detector Operations & Maintenance	2.2.10 Supernova Operations	Non-US	MAINZ	GR	EBERHARD, BENJAMIN	SuperNova Operations	Non-US In-kind				0.50	0.50
2.2 Detector Operations & Maintenance	2.2.10 Supernova Operations	Non-US	MAINZ	GR	BAUM, VOLKER	SuperNova Operations	Non-US In-kind				0.50	0.50
2.2 Detector Operations & Maintenance	2.2.10 Supernova Operations	Non-US	Non-US Total								1.10	1.10
2.2 Detector Operations & Maintenance	2.2.10 Supernova Operations	WBS L3						0.00	0.15	0.00	1.10	1.25
2.2 Detector Operations & Maintenance	2.2.10 Supernova Operations	WBS L2 Total						12.10	2.03	0.69	4.77	19.58

IceCube M&O Staffing Matrix sort by WBS v16.1 2014.0331

WBS L2	WBS L3	US / Non US	Institution	Labor Cat.	Names	Tasks	Source of Funds (U.S. Only)	NSF M&O Core	NSF Base Grants	U.S. Institutional In-Kind	Europe & Asia Pacific In-Kind	Grand Total
2.3 Computing And Data Management	2.3.1 Core Software	US	UMD	GR	HELLAUER, ROBERT	Core Software	Base Grants		0.13			0.13
2.3 Computing And Data Management	2.3.1 Core Software	US	UMD	CS	Schmidt, Torsten	Maintain Core Analysis Framework (IceTray)	NSF M&O Core	0.50				0.50
2.3 Computing And Data Management	2.3.1 Core Software	US	UMD	CS	Straszheim, Troy	Maintain Core Analysis Framework (IceTray)	NSF M&O Core	1.00				1.00
2.3 Computing And Data Management	2.3.1 Core Software	US	UMD	CS	UMD CS	Maintain Core Software Repository	NSF M&O Core	0.50				0.50
2.3 Computing And Data Management	2.3.1 Core Software	US	UMD	GR	MAUNU, RYAN	Detector R&D	Base Grants		0.25			0.25
2.3 Computing And Data Management	2.3.1 Core Software	US	UW	DH	DIAZ-VELEZ, JUAN CARLOS	Simulation production & data processing software framework (IceProd), and simulation programs (detector response)	NSF M&O Core	0.80				0.80
2.3 Computing And Data Management	2.3.1 Core Software	US	UW	CS	Braun, Jim	Development of IceCube event viewer software	NSF M&O Core	0.75				0.75
2.3 Computing And Data Management	2.3.1 Core Software	US	UW	CS	Braun, Jim	Software support, code reviews	NSF M&O Core	0.25				0.25
2.3 Computing And Data Management	2.3.1 Core Software	US	UW	DH	FADIRAN, OLADIPO	Maintain Data Processing Software	NSF M&O Core	0.20				0.20
2.3 Computing And Data Management	2.3.1 Core Software	US	US Total					4.00	0.38	0.00		4.38
2.3 Computing And Data Management	2.3.1 Core Software	Non-US	UU	SC	BOERSMA, DAVID	Maintain Reconstruction Framework	Non-US In-kind				0.10	0.10
2.3 Computing And Data Management	2.3.1 Core Software	Non-US	Non-US Total								0.10	0.10
2.3 Computing And Data Management	2.3.1 Core Software	WBS L3 1						4.00	0.38	0.00	0.10	4.48
2.3 Computing And Data Management	2.3.2 Data Storage & Transfer	US	UW	DH	FADIRAN, OLADIPO	Transformation of Data for Long-Term Persistence and Archival. Maintain Data Warehouse Standards, Software (Ingest), Data Access (FTP), and Web Interface	NSF M&O Core	0.20				0.20
2.3 Computing And Data Management	2.3.2 Data Storage & Transfer	US	UW	IT	RICHARDS, JOHN	Maintain and Operate Data Storage Infrastructure	NSF M&O Core	1.00				1.00
2.3 Computing And Data Management	2.3.2 Data Storage & Transfer	US	UW	IT	BELLINGER, JIM	Maintain and Operate Data Storage Infrastructure	NSF M&O Core	0.75				0.75
2.3 Computing And Data Management	2.3.2 Data Storage & Transfer	US	UW	CS	MEADE, PATRICK	Transfer Data from S. Pole to UW Data Warehouse and Archive at S. Pole. Maintain Data Transfer SW (SPADE). Maintain Data Warehouse Standards, Software (Ingest), Data Access (FTP), and Web Interface	NSF M&O Core	0.50				0.50
2.3 Computing And Data Management	2.3.2 Data Storage & Transfer	US	US Total					2.45	0.00	0.00		2.45
2.3 Computing And Data Management	2.3.2 Data Storage & Transfer	Non-US	DESY	GR	STOESSL, ACHIM	Data Storage & Transfer	Non-US In-kind				0.10	0.10
2.3 Computing And Data Management	2.3.2 Data Storage & Transfer	Non-US	Non-US Total								0.10	0.10
2.3 Computing And Data Management	2.3.2 Data Storage & Transfer	WBS L3 1						2.45	0.00	0.00	0.10	2.55
2.3 Computing And Data Management	2.3.3 Computing Resources	US	PSU	PO	JOAO PEDRO DE ANDRES	Coordination and Support for Grid and distributed computing	NSF M&O Core	0.25				0.25
2.3 Computing And Data Management	2.3.3 Computing Resources	US	SUBR	KE	TER-ANTONYAN, SAMVEL	LONI Grid computing	US In-Kind			0.30		0.30
2.3 Computing And Data Management	2.3.3 Computing Resources	US	UMD	IT	UMD IT	Coordination and Support for Grid and distributed computing	NSF M&O Core	0.25				0.25
2.3 Computing And Data Management	2.3.3 Computing Resources	US	UW	IT	STOCK, BEN	Maintain Data Center Infrastructure	NSF M&O Core	1.00				1.00
2.3 Computing And Data Management	2.3.3 Computing Resources	US	UW	IT	Barnet, Steve	Maintain Core Computing Systems, Coordination Grid & distributed computing	NSF M&O Core	1.00				1.00
2.3 Computing And Data Management	2.3.3 Computing Resources	US	UW	IT	BELLINGER, JIM	Maintain Core High Performance Computing Systems	NSF M&O Core	0.25				0.25
2.3 Computing And Data Management	2.3.3 Computing Resources	US	UW	IT	BRIK, VLADIMIR	Maintain Core High Performance Computing Systems	NSF M&O Core	0.50				0.50
2.3 Computing And Data Management	2.3.3 Computing Resources	US	UW	IT	WISNIEWSKI, PAUL	Maintain Data Center Networking and Security	NSF M&O Core	0.75				0.75
2.3 Computing And Data Management	2.3.3 Computing Resources	US	UW	IT	BRIK, VLADIMIR	Maintain Data Center Infrastructure	NSF M&O Core	0.50				0.50
2.3 Computing And Data Management	2.3.3 Computing Resources	US	US Total					4.50	0.00	0.30		4.80
2.3 Computing And Data Management	2.3.3 Computing Resources	Non-US	DESY	IT	DESY IT	European Data Center -Distributed Computing and Labor	Non-US In-kind				2.00	2.00
2.3 Computing And Data Management	2.3.3 Computing Resources	Non-US	DTMND	SC	PIELOTH, DAMIAN	Coordinate GRID computing in Germany	Non-US In-kind				0.25	0.25
2.3 Computing And Data Management	2.3.3 Computing Resources	Non-US	SU	SC	SU SC	Computing Resources	Non-US In-kind				0.10	0.10
2.3 Computing And Data Management	2.3.3 Computing Resources	Non-US	UU	SC	BOERSMA, DAVID	Computing Resources	Non-US In-kind				0.25	0.25
2.3 Computing And Data Management	2.3.3 Computing Resources	Non-US	UMH	GR	KOHNNEN, GEORGES	IC database management	Non-US In-kind				0.30	0.30
2.3 Computing And Data Management	2.3.3 Computing Resources	Non-US	Non-US Total								2.90	2.90
2.3 Computing And Data Management	2.3.3 Computing Resources	WBS L3 1						4.50	0.00	0.30	2.90	7.70
2.3 Computing And Data Management	2.3.4 Data Production Processing	US	UW	PO	SANTANDER, MARCOS	optimize the efficiency of Simulation Production	NSF M&O Core	0.50				0.50
2.3 Computing And Data Management	2.3.4 Data Production Processing	US	GTECH	GR	DAUGHHETTEE, JACOB	online / L2 / L3 processing for low energy group	Base Grants		0.20			0.20
2.3 Computing And Data Management	2.3.4 Data Production Processing	US	UMD	PO	FELDE, JOHN	Implement near real time GRB analysis	Base Grants		0.40			0.40
2.3 Computing And Data Management	2.3.4 Data Production Processing	US	UW	CS	MEADE, PATRICK	Unpacking, Decoding & Calibration of Raw Data (Level1); Run Common Reconstructions on UW IceCube Compute Cluster (Level2)	NSF M&O Core	0.50				0.50
2.3 Computing And Data Management	2.3.4 Data Production Processing	US	US Total					1.00	0.60	0.00		1.60
2.3 Computing And Data Management	2.3.4 Data Production Processing	Non-US	Non-US Total								0.00	0.00
2.3 Computing And Data Management	2.3.4 Data Production Processing	WBS L3 1						1.00	0.60	0.00	0.00	1.60

IceCube M&O Staffing Matrix sort by WBS v16.1 2014.0331

WBS L2	WBS L3	US / Non US	Institution	Labor Cat.	Names	Tasks	Source of Funds (U.S. Only)	NSF M&O Core	NSF Base Grants	U.S. Institutional In-Kind	Europe & Asia Pacific In-Kind	Grand Total
2.3 Computing And Data Management	2.3.5 Simulation Production	US	LBNL	PO	CHANG, HYON HA	Simulation Production on PDSF	Base Grants		0.20			0.20
2.3 Computing And Data Management	2.3.5 Simulation Production	US	PSU	PO	ARLEN, TIM	Simulation Production	Base Grants		0.08			0.08
2.3 Computing And Data Management	2.3.5 Simulation Production	US	PSU	PO	JOAO PEDRO DE ANDRES	Simulation Production, IceSim vetting for LowEn	Base Grants		0.08			0.08
2.3 Computing And Data Management	2.3.5 Simulation Production	US	OSU	PO	SUTHERLAND, MICHAEL	Simulation Production	US In-Kind			0.10		0.10
2.3 Computing And Data Management	2.3.5 Simulation Production	US	UD	PO	TAMBURRO, ALESSIO	IceTop Simulation Production	Base Grants		0.35			0.35
2.3 Computing And Data Management	2.3.5 Simulation Production	US	UMD	GR	CHEUNG, ELIM	Simulation Production coordination	Base Grants		0.25			0.25
2.3 Computing And Data Management	2.3.5 Simulation Production	US	UW	SC	DESIATI, PAOLO	Coordination of Simulation Production, identifying resources, streamlining programs for the cloud, GPU	NSF M&O Core	0.40				0.40
2.3 Computing And Data Management	2.3.5 Simulation Production	US	UW	SC	DESIATI, PAOLO	Simulation Production panel chair	US In-Kind			0.20		0.20
2.3 Computing And Data Management	2.3.5 Simulation Production	US	UW	PO	DAY, MELANIE	Low energy simulation production, event reconstruction	Base Grants		0.25			0.25
2.3 Computing And Data Management	2.3.5 Simulation Production	US	UW	GR	MCNALLY, FRANK	IceTop Simulation Production / Data Processing	Base Grants		0.30			0.30
2.3 Computing And Data Management	2.3.5 Simulation Production	US	UW	DH	SCHULTZ, DAVID	Simulation Production	NSF M&O Core	1.00				1.00
2.3 Computing And Data Management	2.3.5 Simulation Production	US	US Total					1.40	1.51	0.30		3.21
2.3 Computing And Data Management	2.3.5 Simulation Production	Non-US	DESY	GR	DESY GR	Simulation Production Cluster	Non-US In-kind				0.15	0.15
2.3 Computing And Data Management	2.3.5 Simulation Production	Non-US	DESY	SC	GORA, DARIUSZ	Simulation Production Cluster	Non-US In-kind				0.20	0.20
2.3 Computing And Data Management	2.3.5 Simulation Production	Non-US	DTMND	GR	ZIEMANN, JAN	Maintenance of the local IceCube MC Production	Non-US In-kind				0.20	0.20
2.3 Computing And Data Management	2.3.5 Simulation Production	Non-US	RWTH	GR	REIMAN, RENE	GPU Mass production on AC-RZ cluster	Non-US In-kind				0.20	0.20
2.3 Computing And Data Management	2.3.5 Simulation Production	Non-US	RWTH	GR	PAUL, LARRISA	Simulation Production on cluster/GRID	Non-US In-kind				0.10	0.10
2.3 Computing And Data Management	2.3.5 Simulation Production	Non-US	RWTH	GR	VEHRING, MARKUS	Low energy Simulation Production	Non-US In-kind				0.20	0.20
2.3 Computing And Data Management	2.3.5 Simulation Production	Non-US	RWTH	GR	LEIF RADEL	Geant Simulations & Light yield	Non-US In-kind				0.05	0.05
2.3 Computing And Data Management	2.3.5 Simulation Production	Non-US	ULB	CS	AMARY, SAMIR	Computer Cluster - simulation	Non-US In-kind				0.20	0.20
2.3 Computing And Data Management	2.3.5 Simulation Production	Non-US	ALBERTA	KE	GRANT, DARREN	WestGrid computing	Non-US In-kind				0.10	0.10
2.3 Computing And Data Management	2.3.5 Simulation Production	Non-US	ALBERTA	GR	NOWICKI, SARAH	Csim photon table production	Non-US In-kind				0.35	0.35
2.3 Computing And Data Management	2.3.5 Simulation Production	Non-US	WUPPERTAL	GR	WUPPERTAL GR	Simulation Production	Non-US In-kind				0.20	0.20
2.3 Computing And Data Management	2.3.5 Simulation Production	Non-US	MAINZ	GR	WIEBE, KLAUS	Simulation Production	Non-US In-kind				0.10	0.10
2.3 Computing And Data Management	2.3.5 Simulation Production	Non-US	CHIBA	KE	KEIICHI MASE	Generating background event simulation by Corsika	Non-US In-kind				0.20	0.20
2.3 Computing And Data Management	2.3.5 Simulation Production	Non-US	NBI	KE	KOSKINEN, JASON	Low-energy/PINGU Simulation	Non-US In-kind				0.10	0.10
2.3 Computing And Data Management	2.3.5 Simulation Production	Non-US	Toronto	KE	CLARK, KENNETH	SciNet computing	Non-US In-kind				0.25	0.25
2.3 Computing And Data Management	2.3.5 Simulation Production	Non-US	Toronto	KE	CLARK, KENNETH	GENIE maintenance	Non-US In-kind				0.10	0.10
2.3 Computing And Data Management	2.3.5 Simulation Production	Non-US	UMH	GR	KOHNNEN, GEORGES	Simulation Production	Non-US In-kind				0.25	0.25
2.3 Computing And Data Management	2.3.5 Simulation Production	Non-US	Non-US Total								2.95	2.95
2.3 Computing And Data Management	2.3.5 Simulation Production	WBS L3 1						1.40	1.51	0.30	2.95	6.16
2.3 Computing And Data Management	WBS L2 Total							13.35	2.49	0.60	6.05	22.49
2.4 Triggering And Filtering	2.4.1 TFT Coordination	US	GTECH	KE	TABOADA, IGNACIO	TFT Board Chair	Base Grants		0.25			0.25
2.4 Triggering And Filtering	2.4.1 TFT Coordination	US	UA	KE	WILLIAMS, DAWN	TFT Board member	US In-Kind			0.10		0.10
2.4 Triggering And Filtering	2.4.1 TFT Coordination	US	UD	KE	SECKEL, DAVID	TFT Board member	US In-Kind			0.10		0.10
2.4 Triggering And Filtering	2.4.1 TFT Coordination	US	UW	PO	KAUER, MATTHEW	TFT Board member	US In-Kind			0.10		0.10
2.4 Triggering And Filtering	2.4.1 TFT Coordination	US	UMD	SC	BLAUFUSS, ERIK	Filter requests, bandwidth, TFT Board Member	US In-Kind			0.30		0.30
2.4 Triggering And Filtering	2.4.1 TFT Coordination	US	UMD	GR	HELLAUER, ROBERT	Prepare datasets for filter testing and common MC datasets for testing	Base Grants		0.10			0.10
2.4 Triggering And Filtering	2.4.1 TFT Coordination	US	US Total					0.00	0.35	0.60		0.95
2.4 Triggering And Filtering	2.4.1 TFT Coordination	Non-US	ALBERTA	KE	GRANT, DARREN	TFT Board member	Non-US In-kind				0.10	0.10
2.4 Triggering And Filtering	2.4.1 TFT Coordination	Non-US	DESY	PO	BERGHAUS, PATRICK	TFT Board member	Non-US In-kind				0.10	0.10
2.4 Triggering And Filtering	2.4.1 TFT Coordination	Non-US	DESY	PO	KARG, TIMO	TFT Board member	Non-US In-kind				0.10	0.10
2.4 Triggering And Filtering	2.4.1 TFT Coordination	Non-US	UU	KE	HALLGREN, ALLAN	TFT Board member	Non-US In-kind				0.10	0.10
2.4 Triggering And Filtering	2.4.1 TFT Coordination	Non-US	UU	KE	DE LOS HEROS, CARLOS	TFT Board member	Non-US In-kind				0.10	0.10
2.4 Triggering And Filtering	2.4.1 TFT Coordination	Non-US	Non-US Total								0.50	0.50
2.4 Triggering And Filtering	2.4.1 TFT Coordination	WBS L3 1						0.00	0.35	0.60	0.50	1.45
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	UA	KE	WILLIAMS, DAWN	Tau WG Chair	US In-Kind			0.25		0.25
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	SBU	KE	KIRYLUK, JOANNA	Cascade WG Co-Chair	US In-Kind			0.25		0.25
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	LBNL	KE	KLEIN, SPENCER	Diffuse WG Co-chair	US In-Kind			0.25		0.25
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	LBNL	PO	CHANG, HYON HA	L2 processing for IC86, studying cascade energy resolution	Base Grants		0.25			0.25
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	PSU	KE	DEYOUNG, TYCE	Oscillations WG - Co Chair	US In-Kind			0.15		0.15
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	UCB	SC	WOSCHNAGG, KURT	Oscillations WG chair	Base Grants		0.25			0.25
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	UD	PO	TAMBURRO, ALESSIO	CR-WG Co Chair	Base Grants		0.25			0.25
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	GTECH	KE	TABOADA, IGNACIO	GRB WG Chair	Base Grants		0.25			0.25
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	UMD	PO	WISSING, HENRIKE	EHE and Brights WG co-chair	Base Grants		0.25			0.25
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	SBU	PO	LESIK-BZDAK, MARIOLA	Cascade filters	Base Grants		0.20			0.20
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	UWRF	KE	SEUNARINE, SURUJ	Calibration-Flasher Studies	US In-Kind			0.20		0.20
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	US Total					0.00	1.45	1.10	0.00	2.55

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WBS L2	WBS L3	US / Non US	Institution	Labor Cat.	Names	Tasks	Source of Funds (U.S. Only)	NSF M&O Core	NSF Base Grants	U.S. Institutional In-Kind	Europe & Asia Pacific In-Kind	Grand Total
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	SU	KE	BOHM, CHRISTIAN	Track engine	Non-US In-kind				0.10	0.10
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	ALBERTA	KE	GRANT, DARREN	Low Energy WG Co-Chair	Non-US In-kind				0.25	0.25
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	CHIBA	SC	ISHIHARA, AYA	Diffuse WG co-chair	Non-US In-kind				0.25	0.25
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	CHIBA	SC	ISHIHARA, AYA	EHE Filters	Non-US In-kind				0.15	0.15
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	DESY	PO	KARG, TIMO	CR WG co-chair	Non-US In-kind				0.25	0.25
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	DESY	SC	GORA, DARIUSZ	Online Filter Alerts / NToO program	Non-US In-kind				0.15	0.15
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	UC	GR	MUNAWARA, KIRAN	Cascade filters	Non-US In-kind				0.20	0.20
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	UU	SC	BOERSMA, DAVID	Maintain Moon shadow and Galactic center filters	Non-US In-kind				0.05	0.05
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	SKKU	KE	ROTT, CARSTEN	BSM WG Co-Chair	Non-US In-kind				0.25	0.25
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	SKKU	GR	JEONG, DONGVOUNG	Online filter development & testing	Non-US In-kind				0.20	0.20
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	SU	KE	FINLEY, CHAD SU	Point Source WG Chair	Non-US In-kind				0.25	0.25
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	SU	KE	HULTQVIST, KLAS	Diffuse WG Co-chair	Non-US In-kind				0.25	0.25
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	SU	GR	ZOLL, MARCEL	Filters and Simulations	Non-US In-kind				0.15	0.15
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	SU	GR	AHRENS, MARYON	PhD-related work	Non-US In-kind				0.10	0.10
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	UU	KE	DE LOS HEROS, CARLOS	WIMP WG Chair	Non-US In-kind				0.25	0.25
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	VUB	GR	KUNNEN JAN	Filter for mow energy muons	Non-US In-kind				0.50	0.50
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	DTMND	KE	RUHE, TIM	Physics filters	Non-US In-kind				0.20	0.20
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	DTMND	GR	SCHMITZ, MARTIN	Physics filters	Non-US In-kind				0.20	0.20
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	DTMND	GR	SCHERIAU, FLORIAN	Physics filters	Non-US In-kind				0.20	0.20
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	WUPPERTAL	KE	HELBING, KLAUS	Exotics- WG chair	Non-US In-kind				0.25	0.25
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	WUPPERTAL	GR	WUPPERTAL GR	New SUSY Filter	Non-US In-kind				0.20	0.20
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	RWTH	GR	LEIF RADEL	L3 IC86-1/2 diffuse data stream	Non-US In-kind				0.20	0.20
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	DPNC	KE	MONTARULI, TERESA	Online filtering	Non-US In-kind				0.10	0.10
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	DPNC	PO	AGUILAR SANCHEZ JUAN ANTONIO	Muon filter responsible for 2014, Online filtering	Non-US In-kind				0.10	0.10
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	DPNC	PO	AGUILAR SANCHEZ JUAN ANTONIO	Muon working group co-Chair	Non-US In-kind				0.25	0.25
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	DPNC	PO	VALLECORSIA, SOFIA	DeepCore filtering	Non-US In-kind				0.20	0.20
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	DPNC	GR	ASEN, CHRISTOV	Online filtering	Non-US In-kind				0.20	0.20
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	DPNC	GR	RAAMEZ MOHAMED	Muon/WIMPs/Low Up Filter	Non-US In-kind				0.20	0.20
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	BONN	GR	VOGE, MARKUS	Online L2 Filter	Non-US In-kind				0.20	0.20
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	BONN	GR	STASIK, ALEXANDER	Alert System for follow-up	Non-US In-kind				0.20	0.20
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	NBI	KE	KOSKINEN, JASON	Low-energy WG Co-Chair	Non-US In-kind				0.25	0.25
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	Non-US Total								6.30	6.30
2.4 Triggering And Filtering	2.4.2 Physics Filters	WBS L3 1						0.00	1.45	1.10	6.30	8.85
2.4 Triggering And Filtering	2.4.2 Physics Filters	WBS L2 Total						0.00	1.80	1.70	6.80	10.30
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	US	LBNL	PO	CHANG, HYON HA	DOM simulator & calibrator	Base Grants		0.10			0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	US	LBNL	PO	CHANG, HYON HA	Simulation Programs: cmc	Base Grants		0.10			0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	US	SUBR	KE	FAZELY, ALI	GEANT Simulation	US In-Kind			0.15		0.15
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	US	SUBR	SC	XIANWU, XU	Simulation Programs	US In-Kind			0.15		0.15
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	US	OSU	PO	STAMATIKOS, MICHAEL	GRB Analysis Tools	US In-Kind			0.05		0.05
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	US	UA	PO	PALCZEWSKI, TOMASZ	Ice simulation	Base Grants		0.35			0.35
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	US	UA	GR	PEPPER, JAMES	Dark Matter signal simulation	Base Grants		0.15			0.15
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	US	UCB	SC	WOSCHNAGG, KURT	Maintain and Verify Simulation of Photon Propagation and update Ice Properties	NSF M&O Core	0.50				0.50
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	US	UD	PO	GONZALEZ, JAVIER	Simulations	Base Grants		0.10			0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	US	UD	PO	RUZYBAEV, BAKHTIYAR	Ice Properties Simulation	Base Grants		0.30			0.30
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	US	UD	GR	PANDYA, HERSHAL	Simulation Programs: sim-services	Base Grants		0.10			0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	US	UD	GR	KOIRALA, RAMESH	Simulation Programs: sim-services	Base Grants		0.10			0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	US	UMD	SC	OLIVAS, ALEX	Simulation Software Programs coordinator	US In-Kind			0.40		0.40
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	US	UMD	PO	WISSING, HENRIKE	Maintain Detector Simulation (IceSim)	Base Grants		0.13			0.13
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	US	UMD	GR	RICHMAN, MIKE	Maintain Detector Simulation (IceSim)	Base Grants		0.13			0.13
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	US	UW	SC	CHIRKIN, DMITRY	Maintain and Verify Simulation of Photon Propagation and update Ice Properties	NSF M&O Core	0.35				0.35
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	US	UW	SC	HOSHINA, KOTOYO	nugen maintenance	NSF M&O Core	0.25				0.25
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	US	UW	GR	VAN SANTEN, JACOB	Muongun	Base Grants		0.20			0.20
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	US	UW	PO	KOPPER, CLAUDIO	Direct photon propagation, IceTray, Simulations, Genie	Base Grants		0.25			0.25
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	US	UW	GR	RIEDEL, BENEDICT	Supernova DAQ, simulation	Base Grants		0.20			0.20
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	US	UW	GR	JERO, KYLE	Veto simulation	Base Grants		0.20			0.20
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	US	UW	DH	DIAZ-VELEZ, JUAN CARLOS	Maintain Simulation Production Software, maintain, test and update physics aspects of the atmospheric muon and neutrino simulation	NSF M&O Core	0.20				0.20
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	US	US Total					1.30	2.40	0.75		4.45

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WBS L2	WBS L3	US / Non US	Institution	Labor Cat.	Names	Tasks	Source of Funds (U.S. Only)	NSF M&O Core	NSF Base Grants	U.S. Institutional In-Kind	Europe & Asia Pacific In-Kind	Grand Total
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	Non-US	DTMND	GR	FACHS, THOMAS	PROPOSAL-IceProd integration and maintenance/support	Non-US In-kind				0.50	0.50
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	Non-US	SU	GR	FLIS, SAMUEL	DOM simulation	Non-US In-kind				0.15	0.15
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	Non-US	UOX	KE	SARKAR, SUBIR	Yellow Book-maintenance	Non-US In-kind				0.10	0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	Non-US	GENT	GR	UGENT GR	Support IceTop Simulations, IceTop Calibrations, IceTop Reconstruction	Non-US In-kind				0.40	0.40
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	Non-US	BOCHUM	KE	TJUS, JULIA	Development PROPOSAL simulation software	Non-US In-kind				0.10	0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	Non-US	BOCHUM	GR	SCHÖNEBERG, SEBASTIAN	Monte Carlo Production	Non-US In-kind				0.10	0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	Non-US	BOCHUM	GR	SCHÖNEBERG, SEBASTIAN	Developing / maintaining ANFlux	Non-US In-kind				0.10	0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	Non-US	NBI	GR	LARSON, MICHAEL	Correlated Noise simulation	Non-US In-kind				0.20	0.20
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	Non-US	NBI	GR	MEDICI, MORTEN	Absolute energy calibration of low-energy interactions	Non-US In-kind				0.20	0.20
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	Non-US	ERLANGEN	GR	CLASSEN, LEW	multi-PMT DOM development and simulations	Non-US In-kind				0.40	0.40
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	Non-US	BONN	KE	KOWALSKI, MAREK	Simulation tools	Non-US In-kind				0.05	0.05
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	Non-US	RWTH	GR	LEIF RADEL	Light yield	Non-US In-kind				0.05	0.05
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	Non-US	RWTH	GR	SEBASTIAN SCHÖNEN	Global Likelihood Fits, KDE-tools	Non-US In-kind				0.10	0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	Non-US	Non-US Total								2.45	2.45
2.5 Data Quality, Reconstruction & Simulation	2.5.1 Simulation Programs	WBS L3						1.30	2.40	0.75	2.45	6.90
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	LBNL	GR	MIARECKI, SANDRA	Algorithm for measuring muon energy	Base Grants		0.25			0.25
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	LBNL	GR	BINDER, GARY	PMT saturation corrections for analysis	Base Grants		0.50			0.50
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	PSU	PO	JOAO PEDRO DE ANDRES	Low energy reconstruction techniques for DeepCore	Base Grants		0.10			0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	PSU	PO	ARLEN, TIM	Develop analysis tools for systematics study	Base Grants		0.10			0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	PSU	PO	TESIC, GORDANA	Integrate IceCube into AMON	US In-Kind			0.50		0.50
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	PSU	GR	DUNKMAN, MATT	develop starting track reconstruction - hybrid reco.	Base Grants		0.47			0.47
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	SUBR	KE	FAZELY, ALI	Reconstruction/ Analysis tools	US In-Kind			0.15		0.15
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	SUBR	SC	XIANWU, XU	Reconstruction/ Analysis tools	US In-Kind			0.15		0.15
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	UA	KE	TOALE, PATRICK	Double cascade fitter	US In-Kind			0.05		0.05
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	UA	GR	XU, DONGLIAN	Improvements to low energy analysis framework	Base Grants		0.10			0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	UD	PO	GONZALEZ, JAVIER	Event reconstruction	Base Grants		0.25			0.25
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	UAA	KE	RAWLINS, KATHERINE	Laputop and software development; Snow correction for IceTop	US In-Kind			0.30		0.30
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	UMD	PO	WISSING, HENRIKE	develop & test reconstruction	Base Grants		0.13			0.13
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	UMD	GR	RICHMAN, MIKE	Reconstruction/ Analysis tools	Base Grants		0.13			0.13
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	SBU	KE	KIRYLUK, JOANNA	BadDomList software maintenance	US In-Kind			0.05		0.05
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	SBU	GR	NIEDERHAUSEN, HANS	Standard Candle	Base Grants		0.10			0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	SBU	GR	NIEDERHAUSEN, HANS	Flashers	Base Grants		0.10			0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	SBU	GR	NIEDERHAUSEN, HANS	Cascade reconstruction	Base Grants		0.10			0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	UW	SC	CHIRKIN, DMITRY	Reconstruction software	NSF M&O Core	0.15				0.15
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	UW	SC	CHIRKIN, DMITRY	Direct photon tracking / iceproperties calibration; FE/pulse extractor; reco S/W	Base Grants		0.15			0.15
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	UW	PO	NEILSON, NAOKO	Point source coordinator	Base Grants		0.20			0.20
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	UW	GR	GLADSTONE, LAURA	Reconstruction tools-Deep Core	Base Grants		0.15			0.15
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	UW	GR	FEINTZIG, JACOB	Event reconstruction (spline fits)	Base Grants		0.10			0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	UW	GR	VAN SANTEN, JACOB	Cascades	Base Grants		0.15			0.15
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	UW	GR	JERO, KYLE	Event reconstruction, angular resolution	Base Grants		0.20			0.20
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	UWRF	KE	MADSEN, JIM	Low-energy IceTop Extensions	US In-Kind			0.10		0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	UWRF	KE	SEUNARINE, SURUJ	Low-Energy Extensions of IceTop	US In-Kind			0.10		0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	US	US Total					0.15	3.27	1.40		4.82
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	ADELAIDE	KE	HILL, GARY	Event energy and direction reconstruction, millipede	Non-US In-kind				0.40	0.40
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	ADELAIDE	PO	WHELAN, BEN	Event energy and direction reconstruction, millipede	Non-US In-kind				1.00	1.00
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	ADELAIDE	GR	AARTSEN, MARK	Event energy and direction reconstruction, millipede	Non-US In-kind				0.50	0.50
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	ALBERTA	GR	WOOD, TANIA	Calibrations with LED and minimum ionizing muons	Non-US In-kind				0.35	0.35
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	CHIBA	KE	YOSHIDA, SHIGERU	Maintain Romeo, EHE Simulations, Calibration using Standard Candles	Non-US In-kind				0.20	0.20
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	CHIBA	KE	KEIICHI MASE	Maintain Romeo, EHE Simulations, Maintain reconstruction projects (Portia), MC/Data comparison for EHE-filtered and IceTop events, Standard Candle Analysis	Non-US In-kind				0.20	0.20
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	CHIBA	SC	ISHIHARA, AYA	Maintain Portia and the SC data filtering	Non-US In-kind				0.15	0.15
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	CHIBA	PO	RELICH, MATTHEW	Standard Candle data analysis for calibrating DOM and ice	Non-US In-kind				0.15	0.15
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	CHIBA	PO	GAIOR, ROMAIN	EHE online pipeline for gamma-ray follow-up	Non-US In-kind				0.15	0.15

IceCube M&O Staffing Matrix sort by WBS v16.1 2014.0331

WBS L2	WBS L3	US / Non-US	Institution	Labor Cat.	Names	Tasks	Source of Funds (U.S. Only)	NSF M&O Core	NSF Base Grants	U.S. Institutional In-Kind	Europe & Asia Pacific In-Kind	Grand Total
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	CHIBA	GR	CHIBA GR	Improve the Ice Model, Afterpulse Simulator, Standard Candle Analysis, Maintain reconstruction projects (Ophelia, ehe-star)	Non-US In-kind				0.20	0.20
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	DESY	GR	MOHRMANN, LARS	Likelihood fit package	Non-US In-kind				0.10	0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	UU	SC	BOERSMA, DAVID	Reconstruction Coordinator	Non-US In-kind				0.20	0.20
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	RWTH	GR	BLUMENTHAL, JAN	IceCube integration in Fittino/Astrofit	Non-US In-kind				0.10	0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	RWTH	GR	VEHRING, MARKUS	Genie MC development & data production	Non-US In-kind				0.20	0.20
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	RWTH	GR	WALLRAFF, MARIUS	Finite track reconstruction	Non-US In-kind				0.10	0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	RWTH	GR	WALLRAFF, MARIUS	nuCraft	Non-US In-kind				0.20	0.20
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	SKKU	PO	BOSE, DEBANJAN	Photon tracking / ice-properties calibration	Non-US In-kind				0.20	0.20
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	SU	GR	WOLF, MARTIN	STTools, EventViewer	Non-US In-kind				0.20	0.20
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	VUB	KE	VAN EIJDHOVEN, NICK	development of reconstruction tools (IcePack framework)	Non-US In-kind				0.25	0.25
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	VUB	PO	DE VRIES, KRIJN	muon track reconstruction in IceCube and DeepCore	Non-US In-kind				0.25	0.25
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	VUB	PO	Lünemann, Jan	Low energy muon reconstruction	Non-US In-kind				0.25	0.25
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	VUB	GR	MAGGI, GIULIANO	muon track reconstruction in IceCube and DeepCore	Non-US In-kind				0.25	0.25
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	VUB	PO	GOLUP, GERALDINA	muon track reconstruction for IceCube and DeepCore	Non-US In-kind				0.25	0.25
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	VUB	GR	CASIER MARTIN	muon track reconstruction in IceCube and DeepCore	Non-US In-kind				0.50	0.50
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	VUB	GR	BRAYEUR LIONEL	muon track reconstruction in IceCube and DeepCore	Non-US In-kind				0.50	0.50
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	ALBERTA	KE	GRANT, DARREN	Maintenance of IceCube-Photonics interface	Non-US In-kind				0.10	0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	WUPPERTAL	GR	WUPPERTAL GR	New SUSY Reconstruction, Simulation, Propagation, Monopole, Photonics, muon detection with IceTop	Non-US In-kind				0.60	0.60
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	MAINZ	GR	WIEBE, KLAUS	Angular res. Cascades	Non-US In-kind				0.20	0.20
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	HUMBOLDT	GR	DE WITH, MEIKE	Reconstruction Release Manager, Maintain Reconstruction Framework	Non-US In-kind				0.25	0.25
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	ERLANGEN	GR	ALTMANN, DAVID	Track reconstruction	Non-US In-kind				0.10	0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	NBI	KE	KOSKINEN, JASON	DeepCore Veto	Non-US In-kind				0.10	0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	NBI	GR	SANDROOS, JOAKIM	Particle identification in PINGU	Non-US In-kind				0.40	0.40
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	Toronto	KE	CLARK, KENNETH	Development of low-energy reconstruction techniques	Non-US In-kind				0.10	0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	BONN	GR	UBONN GR	Reconstruction/ Analysis tools	Non-US In-kind				0.20	0.20
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	BONN	GR	VOGE, MARKUS	Reconstruction	Non-US In-kind				0.10	0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	BONN	GR	USNER, MARCEL	Reconstruction/ Analysis tools	Non-US In-kind				0.20	0.20
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	Non-US	Non-US Total								9.20	9.20
2.5 Data Quality, Reconstruction & Simulation	2.5.2 Reconstruction/ Analysis Tools	WBS L3 Total						0.15	3.27	1.40	9.20	14.02
2.5 Data Quality, Reconstruction & Simulation	2.5.3 Data Quality	US	US Total					0.00	0.00	0.00		0.00
2.5 Data Quality, Reconstruction & Simulation	2.5.3 Data Quality	Non-US	TUM	PO	MPI PO	Data Quality & DeepCore	Non-US In-kind				0.60	0.60
2.5 Data Quality, Reconstruction & Simulation	2.5.3 Data Quality	Non-US	DPNC	GR	ASEN, CHRISTOV	Data and Simulation Quality	Non-US In-kind				0.30	0.30
2.5 Data Quality, Reconstruction & Simulation	2.5.3 Data Quality	Non-US	DPNC	GR	RAAMEZ MOHAMED	Data and Simulation Quality	Non-US In-kind				0.30	0.30
2.5 Data Quality, Reconstruction & Simulation	2.5.3 Data Quality	Non-US	DPNC	PO	AGUILAR SANCHEZ JUAN ANTONIO	Data and Simulation Quality	Non-US In-kind				0.15	0.15
2.5 Data Quality, Reconstruction & Simulation	2.5.3 Data Quality	Non-US	DPNC	PO	VALLECORSA, SOFIA	Data and Simulation Quality for low energy searches	Non-US In-kind				0.30	0.30
2.5 Data Quality, Reconstruction & Simulation	2.5.3 Data Quality	Non-US	VUB	KE	VAN EIJDHOVEN, NICK	data quality verification	Non-US In-kind				0.25	0.25
2.5 Data Quality, Reconstruction & Simulation	2.5.3 Data Quality	Non-US	VUB	PO	GOLUP, GERALDINA	GRB analysis	Non-US In-kind				0.25	0.25
2.5 Data Quality, Reconstruction & Simulation	2.5.3 Data Quality	Non-US	VUB	GR	MAGGI, GIULIANO	AGN analysis	Non-US In-kind				0.25	0.25
2.5 Data Quality, Reconstruction & Simulation	2.5.3 Data Quality	Non-US	VUB	PO	DE VRIES, KRIJN	GRB/AGN analysis	Non-US In-kind				0.25	0.25
2.5 Data Quality, Reconstruction & Simulation	2.5.3 Data Quality	Non-US	Non-US Total								2.65	2.65
2.5 Data Quality, Reconstruction & Simulation	2.5.3 Data Quality	WBS L3 Total						0.00	0.00	0.00	2.65	2.65
2.5 Data Quality, Reconstruction & Simulation	2.5.4 Offline Data Processing	US	UW	DH	FADIRAN, OLADIPO	Simulation Production Coordination; production configurations, test production and web portal.	NSF M&O Core	0.60				0.60
2.5 Data Quality, Reconstruction & Simulation	2.5.4 Offline Data Processing	US	UW	PO	KOPPER, CLAUDIO	L2 processing support	NSF M&O Core		0.30			0.30
2.5 Data Quality, Reconstruction & Simulation	2.5.4 Offline Data Processing	US	UW	PO	NEILSON, NAOKO	L2 Offline Processing	NSF M&O Core	0.25				0.25
2.5 Data Quality, Reconstruction & Simulation	2.5.4 Offline Data Processing	US	UW	GR	FEINTZIG, JACOB	L2 processing, muon stream	Base Grants		0.10			0.10
2.5 Data Quality, Reconstruction & Simulation	2.5.4 Offline Data Processing	US	US Total					0.85	0.40	0.00		1.25
2.5 Data Quality, Reconstruction & Simulation	2.5.4 Offline Data Processing	Non-US	Non-US Total								0.00	0.00
2.5 Data Quality, Reconstruction & Simulation	2.5.4 Offline Data Processing	WBS L3 Total						0.85	0.40	0.00	0.00	1.25
2.5 Data Quality, Reconstruction & Simulation	WBS L2 Total							2.30	6.07	2.15	14.30	24.82
Grand Total								33.88	12.78	8.49	37.07	92.21