

## IceCube M&O Staffing Matrix sort by Institutions v9.0 2010.0915

Institution	Labor Cat.	Names		WBS L3		Tasks		Funds Source	WBS 2.1	WBS 2.2	WBS 2.3	WBS 2.4	WBS 2.5	Grand Total
									Program Management	Detector Maintenance & Operations	Computing & Data Management	Triggering & Filtering	Data Quality, Reconstruction & Simulation Tools	
									Cat.	Description	Cat.	Description	Cat.	
		AD	Administration	GR	Graduate Student	PO	Postdoctoral Scientist	TE	Technician					
		CS	Computer Science Eng.	KE	Key Personnel/Faculty	SC	Scientist	WO	Wintover					
		EN	Engineer	MA	Management	SE	Senior Engineer							
CAU	KE	Japaridze, George	Detector Monitoring		Monitoring shifts		US Institutional Support		0.02					0.02
		Japaridze, George Total							0.02					0.02
<b>CAU Total</b>									<b>0.02</b>					<b>0.02</b>
GTECH	KE	TABOADA, IGNACIO	Administration		Chair of speakers' committee		US Institutional Support		0.25					0.25
		TABOADA, IGNACIO Total							0.25					0.25
	PO	Tepe, Andreas	Simulation Production		Simulation Production		US Base Grants				0.20			0.20
		Tepe, Andreas Total									0.20			0.20
	GR	GTECH GR	Detector Monitoring		Monitoring shifts		US Base Grants		0.03					0.03
		GTECH GR Total							0.03					0.03
		Daughhete, Jacob	Detector Calibration		Standard Candle Vertex and Energy Calibration		US Base Grants		0.20					0.20
		Daughhete, Jacob Total							0.20					0.20
<b>GTECH Total</b>									<b>0.25</b>	<b>0.23</b>	<b>0.20</b>			<b>0.68</b>
KU	KE	Besson, Dave	Detector Monitoring		Monitoring shifts		US Institutional Support			0.02				0.02
			Engineering and R&D Support		EMI - Radio R&D		US Institutional Support		0.10					0.10
		Besson, Dave Total							0.10	0.02				0.12
<b>KU Total</b>									<b>0.10</b>	<b>0.02</b>				<b>0.12</b>
LBNL	KE	KLEIN,SPENCER	Administration		Supervise LBNL effort		NSF M&O Core		0.05					0.05
					Publications Comm. Member		US Institutional Support		0.10					0.10
			Physics Filters		Co. Chair of Cascade WG		US Institutional Support					0.25		0.25
			Reconstruction/ Analysis tools		co-chair of Diffuse WG		US Institutional Support					0.25		0.25
		KLEIN,SPENCER Total							0.15			0.50		0.65
		NYGREN,DAVID R	DETECTOR OPERATIONS & MAINTENANCE		Track Engine Trigger		US Institutional Support		0.10					0.10
		NYGREN,DAVID R Total							0.10					0.10
	SC	KIRYLUK,JOANNA	Detector Calibration		Flasher Runs		US Base Grants		0.10					0.10
			Detector Monitoring		BadDomList		US Base Grants		0.20					0.20
			Simulation Production		Simulation Production on PDSF		US Base Grants				0.20			0.20
		KIRYLUK,JOANNA Total							0.30		0.20			0.50
	PO	BUITIN,STIJN	Simulation Programs		DOM simulator & calibrator		US Base Grants						0.35	0.35
		BUITIN,STIJN Total												0.35
		GERHARDT,LISA	Simulation Programs		Simulation Programs: cmc		US Base Grants						0.20	0.20
		GERHARDT,LISA Total											0.20	0.20
		LBNL PO	Detector Monitoring		Monitoring shifts		US Base Grants		0.09					0.09
			Simulation Production		Simulation Production		NSF M&O Core				0.00			0.00
		LBNL PO Total							0.09		0.00			0.09
	CS	BEATTIE,KEITH S	Data Acquisition		Maintain DAQ Software Systems (incl. triggers, DOM SW, etc. up to Event Builder)		NSF M&O Core		0.25					0.25
		BEATTIE,KEITH S Total							0.25					0.25
	EN	STEZELBERGER,THORSTEN	Data Acquisition		Maintain DAQ Hardware (Hubs, DOR, Clocks, GPS,...)		NSF M&O Core		0.15					0.15
		STEZELBERGER,THORSTEN Total							0.15					0.15
<b>LBNL Total</b>									<b>0.15</b>	<b>0.89</b>	<b>0.20</b>	<b>0.25</b>	<b>0.80</b>	<b>2.29</b>
OSU	PO	OSU PO	Detector Monitoring		Monitoring shifts		US Base Grants		0.02					0.02
			Education & Outreach		Outreach		US Base Grants		0.05					0.05
		OSU PO Total							0.05	0.02				0.07
		ROTT, CARSTEN	Data Quality		Data Quality		US Base Grants						0.10	0.10
			Detector Monitoring		Maintain good run list		US Base Grants		0.20					0.20
		ROTT, CARSTEN Total							0.20				0.10	0.30
	GR	Davis, James	Detector Monitoring		Monitoring shifts		US Base Grants		0.01					0.01
			Physics Filters		Vertical Events Filter		US Base Grants					0.15		0.15
		Davis, James Total							0.01			0.15		0.16
<b>OSU Total</b>									<b>0.05</b>	<b>0.23</b>		<b>0.15</b>	<b>0.10</b>	<b>0.53</b>
PSU	KE	COWEN, DOUG	Administration		ExecCom member		US Institutional Support		0.20					0.20
			Education & Outreach		Education & Outreach		US Institutional Support		0.05					0.05
			Physics Filters		Hybrid/Tau WG Chair		US Institutional Support					0.25		0.25
		COWEN, DOUG Total							0.25			0.25		0.50
		DEYOUNG, TYCE	Education & Outreach		Education & Outreach		US Institutional Support		0.05					0.05
			Physics Filters		Deep Core WG - Co Chair		US Institutional Support					0.25		0.25
		DEYOUNG, TYCE Total							0.05			0.25		0.30
	PO	KOSKINEN, JASON	Physics Filters		develop and verify Deep Core filters		US Base Grants						0.18	0.18
			Reconstruction/ Analysis tools		Coordinate Deep Core reconstruction for production		US Base Grants						0.12	0.12
			Detector Monitoring		Monitoring shifts		US Base Grants			0.03				0.03
		KOSKINEN, JASON Total							0.03			0.18	0.12	0.33
		PSU PO	Computing Resources		Coordination and Support for Grid and distributed computing		NSF M&O Core				0.25			0.25
			Simulation Production		Simulation Production		US Base Grants				0.17			0.17
			Reconstruction/ Analysis tools		develop starting track reconstruction		US Base Grants						0.08	0.08
		PSU PO Total									0.42		0.08	0.50
	GR	PSU GR	Detector Monitoring		Monitoring shifts		US Base Grants		0.03					0.03
		PSU GR Total							0.03					0.03
		HA, CHANG Hyon	Reconstruction/ Analysis tools		develop starting track reconstruction		US Base Grants						0.13	0.13
		HA, CHANG Hyon Total											0.13	0.13
<b>PSU Total</b>									<b>0.30</b>	<b>0.06</b>	<b>0.42</b>	<b>0.68</b>	<b>0.33</b>	<b>1.78</b>

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Institution	Labor Cat.	Names		WBS L3		Tasks		Funds Source		WBS 2.1	WBS 2.2	WBS 2.3	WBS 2.4	WBS 2.5	Grand Total								
																Cat.	Description	Cat.	Description	Cat.	Description	Cat.	Description
																AD	Administration	GR	Graduate Student	PO	Postdoctoral Scientist	TE	Technician
		CS	Computer Science Eng.	KE	Key Personnel/Faculty	SC	Scientist	WO	Winterover														
		EN	Engineer	MA	Management	SE	Senior Engineer																
SUBR	KE	FAZELY, ALI	Reconstruction/ Analysis tools	Reconstruction/ Analysis tools	US Institutional Support									0.15	0.15								
			Simulation Programs	GEANT Simulation	US Institutional Support									0.15	0.15								
		FAZELY, ALI Total													0.30	0.30							
		Imlay, Richard	Reconstruction/ Analysis tools	Reconstruction/ Analysis tools	US Institutional Support											0.15	0.15						
			Simulation Programs	Simulation Programs	US Institutional Support											0.15	0.15						
	Imlay, Richard Total														0.30	0.30							
	SC	TER-ANTONYAN, SAM	Computing Resources	LONI Grid computing	US Institutional Support						0.30					0.30							
			Detector Monitoring	Detector Monitoring	US Institutional Support					0.02						0.02							
		TER-ANTONYAN, SAMVEL Total									0.02	0.30				0.32							
	<b>SUBR Total</b>										<b>0.02</b>	<b>0.30</b>			<b>0.60</b>	<b>0.92</b>							
UA	KE	Williams, Dawn	Data Quality	Data Quality Lead	US Institutional Support									0.15	0.15								
			Detector Calibration	managing flasher runs and other calibrations (stage 2 geometry)	US Institutional Support				0.15						0.15								
		Williams, Dawn Total								0.15					0.15	0.30							
		TOALE, PATRICK	Administration	Software Coordinator	US Institutional Support				0.75							0.75							
		TOALE, PATRICK Total								0.75						0.75							
	PO	Zarzhitzky, Pavel	Detector Calibration	taking flasher runs	US Base Grants					0.20						0.20							
			Simulation Programs	Simulation verification	US Base Grants										0.30	0.30							
	Zarzhitzky, Pavel Total									0.20					0.30	0.50							
	GR	Xu, Donglian	Detector Calibration	geometry systematic	US Base Grants					0.25						0.25							
			Detector Monitoring	Monitoring shifts	US Base Grants					0.03						0.03							
Xu, Donglian Total									0.28					0.28									
<b>UA Total</b>										<b>0.75</b>	<b>0.63</b>			<b>0.45</b>	<b>1.83</b>								
UAA	KE	Rawlins, Katherine	Detector Monitoring	Monitoring shifts	US Institutional Support				0.02						0.02								
			Reconstruction/ Analysis tools	flat-ntuple; muon-bundle-reco; Snow correction for IceTop	US Institutional Support									0.30	0.30								
		Rawlins, Katherine Total									0.02				0.30	0.32							
<b>UAA Total</b>										<b>0.02</b>	<b>0.02</b>			<b>0.30</b>	<b>0.32</b>								
UCB	KE	PRICE, BUFORD	Administration	Education & Outreach	US Institutional Support				0.10						0.10								
			PRICE, BUFORD Total							0.10						0.10							
	SC	FILIMONOV, KIRILL	Detector Monitoring	Coordinate Monitoring	US Base Grants				0.50						0.50								
			FILIMONOV, KIRILL Total							0.50					0.50								
		UCB SC	Detector Monitoring	Monitoring shifts	US Base Grants				0.02						0.02								
	UCB SC Total								0.02					0.02									
	WOSCHNAGG, KURT	Administration	Speakers Comm member	US Base Grants				0.10							0.10								
		Detector Calibration	Calibration Lead	US Base Grants				0.15							0.15								
		Physics Filters	Diffuse / atmosnu WG chair	US Base Grants							0.25				0.25								
		Simulation Programs	Maintain and Verify Simulation of Photon Propagation and update Ice Properties	NSF M&O Core										0.50	0.50								
		WOSCHNAGG, KURT Total							0.10	0.15		0.25		0.50	1.00								
	GR	UCB GR	Detector Calibration	Calibration	US Base Grants				0.10						0.10								
			Detector Monitoring	Monitoring shifts	US Base Grants				0.02						0.02								
UCB GR Total								0.12					0.12										
<b>UCB Total</b>										<b>0.20</b>	<b>0.78</b>		<b>0.25</b>	<b>0.50</b>	<b>1.73</b>								
UCI	PO	Silverstri, Andrea	Detector Monitoring	Monitoring shifts	US Base Grants				0.01						0.01								
			Silverstri, Andrea Total						0.01						0.01								
	GR	Hanson, Jordan	Detector Monitoring	Monitoring shifts	US Base Grants				0.01						0.01								
			Hanson, Jordan Total						0.01					0.01									
<b>UCI Total</b>										<b>0.02</b>	<b>0.02</b>			<b>0.02</b>									
UD	KE	GAISSER, TOM	Administration	Spokesperson	US Institutional Support				0.30						0.30								
			GAISSER, TOM Total							0.30					0.30								
		SECKEL, DAVID	TFT Coordination	TFT Board member	US Institutional Support							0.10				0.10							
			SECKEL, DAVID Total									0.10				0.10							
		UD KE	Data Acquisition	DAQ Monitoring	US Institutional Support				0.05						0.05								
	UD KE Total								0.05					0.05									
	SC	UD SC	IceTop Operations	Coordinate IceTop Operations	NSF M&O Core				1.00						1.00								
			UD SC Total						1.00						1.00								
	PO	BERGHAUS, PATRICK	Physics Filters	moun channel WG Co. Chair	US Base Grants								0.25		0.25								
			BERGHAUS, PATRICK - UD Total									0.25			0.25								
		Hussain, Shahid	Simulation Production	IceTop Simulation Production	US Base Grants						0.15				0.15								
			Simulation Programs	Ice Properties Simulation	US Base Grants									0.30	0.30								
		Hussain, Shahid Total									0.15			0.30	0.45								
		Kuwabara, Takao	Detector Monitoring	Temp. & Pressure atmospheric monitoring	US Base Grants					0.25						0.25							
			Kuwabara, Takao Total							0.25						0.25							
GR	Ruzybaev, Bakhtiyar	Simulation Programs	Ice Properties Simulation	US Base Grants										0.30	0.30								
		Ruzybaev, Bakhtiyar Total												0.30	0.30								
	Xu, Chen	Simulation Programs	Simulation Programs: sim-services	US Base Grants										0.30	0.30								
Xu, Chen Total														0.30	0.30								
<b>UD Total</b>										<b>0.30</b>	<b>1.30</b>	<b>0.15</b>	<b>0.35</b>	<b>0.90</b>	<b>3.00</b>								
UMD	KE	HOFFMAN, KARA	Engineering and R&D Support	Detector R&D	US Institutional Support				0.20						0.20								
			HOFFMAN, KARA Total						0.20					0.20									
		Sullivan, Greg	Administration	ExecCom member	US Institutional Support				0.20						0.20								
	Sullivan, Greg Total								0.20					0.20									
	UMD KE	Education & Outreach	E&O	US Institutional Support				0.10						0.10									
	UMD KE Total								0.10					0.10									

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				Cat.	Description	Cat.	Description								Cat.	Description	Cat.	Description
				AD	Administration	GR	Graduate Student								PO	Postdoctoral Scientist	TE	Technician
	CS	Computer Science Eng.	KE	Key Personnel/Faculty	SC	Scientist	WO	Winterover										
	EN	Engineer	MA	Management	SE	Senior Engineer												
UMD	SC	BLAUFUSS, ERIK	Core Software	Core Software	US Base Grants		0.00						0.00					
			Online Filter (PnF)	Maintain PnF Software and Online Filters	NSF M&O Core		0.20						0.20					
			Physics Filters	GRB WG Chair	US Base Grants				0.25				0.25					
			TFT Coordination	Coordinate process for filter requests, bandwidth	NSF M&O Core				0.30				0.30					
		BLAUFUSS, ERIK Total						0.20	0.00	0.55				0.75				
		SCHMIDT, TORSTEN	Core Software	Maintain Core Analysis Framework (IceTray)	NSF M&O Core			0.50						0.50				
			Online Filter (PnF)	Maintain PnF Software and Online Filters	NSF M&O Core			0.25						0.25				
		SCHMIDT, TORSTEN Total						0.25	0.50					0.75				
		PO	OLIVAS, ALEX	Administration	Pubcom member	US Base Grants		0.10							0.10			
				Physics Filters	exotics- WG chair	US Base Grants				0.25					0.25			
				Simulation Programs	Simulation Software Programs coordinator	NSF M&O Core							0.40		0.40			
			OLIVAS, ALEX Total						0.10		0.25	0.40			0.75			
	UMD PO		Detector Monitoring	Monitoring shifts	US Base Grants			0.03						0.03				
	UMD PO Total							0.03					0.03					
	Wissing, Henrike		Administration	Pubcom member	US Base Grants		0.10								0.10			
			Reconstruction/ Analysis tools	develop & test reconstruction	US Base Grants					0.25					0.25			
			Simulation Programs	Maintain Detector Simulation (IceSim)	US Base Grants					0.25					0.25			
	Wissing, Henrike Total						0.10		0.50					0.60				
	GR		CHRISTY, BRIAN	Simulation Production	Simulation Production coordination	US Base Grants				0.25					0.25			
				CHRISTY, BRIAN Total						0.25					0.25			
		Ehrlich, Ralf	Core Software	Core Software	US Base Grants				0.50					0.50				
			Ehrlich, Ralf Total						0.50					0.50				
		REDL, PETER	Online Filter (PnF)	Online Filter Testing	US Base Grants			0.25						0.25				
			Reconstruction/ Analysis tools	Reconstruction/ Analysis tools	US Base Grants						0.25			0.25				
			Simulation Programs	Maintain Detector Simulation (IceSim)	US Base Grants					0.25				0.25				
		REDL, PETER Total						0.25		0.50				0.75				
		UMD GR	Core Software	Core Software	US Base Grants				0.25					0.25				
			Detector Monitoring	Monitoring shifts	US Base Grants			0.06						0.06				
			TFT Coordination	Prepare datasets for filter testing and common MC datasets for testing	US Base Grants					0.20				0.20				
		UMD GR Total						0.06	0.25	0.20				0.51				
	UMD CS	Core Software	Maintain Core Software Repository	NSF M&O Core				0.25					0.25					
		UMD CS Total						0.25					0.25					
	TE	STRASZHEIM, TROY	Core Software	> 1 FTE	NSF M&O Core						0.88			0.88				
			STRASZHEIM, TROY Total						0.88				0.88					
		UMD TE	Computing Resources	Coordination and Support for Grid and distributed computing	NSF M&O Core			0.25					0.25					
		UMD TE Total						0.25					0.25					
	<b>UMD Total</b>								<b>0.70</b>	<b>0.79</b>	<b>2.88</b>	<b>1.00</b>	<b>1.40</b>	<b>6.77</b>				
	UW	KE	HALZEN, FRANCIS	Administration	Principle Investigator	NSF M&O Core		0.08						0.08				
				HALZEN, FRANCIS Total					0.33					0.33				
			KARLE, ALBRECHT	Administration	Associate Director for Science	NSF M&O Core		0.08							0.08			
				KARLE, ALBRECHT Total					0.33						0.33			
			MONTARULI, TERESA	TFT Coordination	TFT Board member	US Institutional Support					0.10				0.10			
				MONTARULI, TERESA Total							0.10				0.10			
			WESTERHOFF, STEFAN	Administration	Pubcom member	US Institutional Support		0.10							0.10			
				WESTERHOFF, STEFAN Total					0.10						0.10			
SC			CHIRKIN, DMITRY	Reconstruction/ Analysis tools	Direct photon tracking / iceproperties calibration 0.3 ; FE/pulse extractor 0.1 ; reco software 0.1	US Base Grants							0.30		0.30			
				Simulation Programs	Simulation Programs: mmc/mmc-icetray and ucr-icetray	US Base Grants							0.20		0.20			
			CHIRKIN, DMITRY Total										0.50		0.50			
			DESIATI, PAOLO	Simulation Production	Coordination of Simulation Production	NSF M&O Core				0.70					0.70			
		DESIATI, PAOLO Total						0.70					0.70					
		HANSON, KAELE	Run Coordination	Left UW	NSF M&O Core													
			HANSON, KAELE Total															
		HILL, GARY	Administration	Weekly call, ICC support	US Base Grants		0.20							0.20				
			Offline Data Processing	Offline processing	NSF M&O Core						0.25			0.25				
			Simulation Programs	Maintain and Verify Simulation of Photon Propagation and update Ice Properties	NSF M&O Core						0.25			0.25				
		HILL, GARY Total					0.20				0.50			0.70				
		KRASBERG, MARK	Data Acquisition	DOM Cal Maintenance, DOM Monitoring and Troubleshooting	NSF M&O Core			0.35						0.35				
				Provide Real-time System Monitoring and Paging	NSF M&O Core			0.20						0.20				
			Run Coordination	Winterovers coordinator	NSF M&O Core			0.25						0.25				
		KRASBERG, MARK Total						0.80						0.80				
		LANDSMAN, YAEL HAGAR	Engineering and R&D Support	Science Support	NSF M&O Core		0.25							0.25				
			LANDSMAN, YAEL HAGAR Total					0.25						0.25				
		MARUYAMA, REINA	Physics Filters	Supernova WG Chair	US Base Grants					0.25				0.25				
MARUYAMA, REINA Total								0.25				0.25						
WENDT, CHRISTOPHER		Data Acquisition	DOM CAL Maintenance	NSF M&O Core			0.25						0.25					
		Detector Calibration	Prepare and Evaluate Flasher Calibrations 0.25 Evaluate (DomCal) Calibration Runs and update Calibration constants 0.1	NSF M&O Core			0.28						0.28					
		WENDT, CHRISTOPHER Total						0.53					0.53					

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																Program Management	Detector Maintenance & Operations	Computing & Data Management	Triggering & Filtering	Data Quality, Reconstruction & Simulation Tools
PO	ABBASI, RASHA	Simulation Programs		DST data checking		US Base Grants								0.10	0.10					
		ABBASI, RASHA Total													0.10	0.10				
	Aguilar Sanchez Juan Antonio	Physics Filters		muon filter		US Base Grants							0.15			0.15				
		Simulation Programs		low level muon data verification (data/mc)		US Base Grants									0.10	0.10				
	Aguilar Sanchez Juan Antonio Total													0.15	0.10	0.25				
	HOSHINA, K	Simulation Production		Photon prop. Calibration		US Base Grants							0.10			0.10				
		HOSHINA, K Total													0.10	0.10				
	Toscano, Simona	Data Production Processing		Cascade data processing		US Base Grants							0.35			0.35				
		Physics Filters		Cascade Online filter		US Base Grants								0.15		0.15				
		Toscano, Simona Total												0.35	0.15	0.50				
	UW PO	Detector Monitoring		Monitoring shifts		US Base Grants				0.12						0.12				
		Simulation Programs		Maintain IceSim		US Base Grants									0.40	0.40				
	UW PO Total									0.12					0.40	0.52				
	GR	BAKER, MICHAEL	Detector Monitoring		Stability		US Base Grants				0.10					0.10				
			BAKER, MICHAEL Total													0.10	0.10			
DUMM, JONATHAN		Offline Data Processing		Offline Data Processing		US Base Grants									0.15	0.15				
		Reconstruction/ Analysis tools		Reconstruction Tools		US Base Grants									0.15	0.15				
DUMM, JONATHAN Total														0.30	0.30					
EISCH, JONATHAN		Simulation Production		IceTop Simulation Production		US Base Grants						0.30				0.30				
		EISCH, JONATHAN Total													0.30	0.30				
GLADSTONE, LAURA		Detector Calibration		Moon Shadow		US Base Grants				0.15						0.15				
		Physics Filters		Deep Core online Filter		US Base Grants								0.15		0.15				
GLADSTONE, LAURA Total									0.15				0.15		0.30					
Rodrigues, Joao-Paulo		Reconstruction/ Analysis tools		Supernova simulation / muon energy reconstruction		US Institutional Support									0.20	0.20				
Rodrigues, Joao-Paulo Total														0.20	0.20					
Santander, Marcos		Detector Calibration		Calibration with flashers		US Base Grants				0.20						0.20				
		Simulation Programs		Flasher Analysis		US Base Grants									0.15	0.15				
Santander, Marcos Total									0.20					0.15	0.35					
UW GR	Detector Monitoring		Monitoring shifts		US Base Grants				0.12						0.12					
UW GR Total									0.12						0.12					
Weaver, Christopher	Data Acquisition		DOM CAL Maintenance		US Base Grants				0.20						0.20					
Weaver, Christopher Total									0.20						0.20					
CS	JACOBSEN, JOHN (NPX)	Data Acquisition		Maintain DAQ Hardware (Hubs, DOR, Clocks, GPS,...)		NSF M&O Core				0.15					0.15					
		Experiment Control		IceCube Live Maintenance and Upgrades		NSF M&O Core				0.85					0.85					
	JACOBSEN, JOHN (NPX) Total									1.00					1.00					
	SOUNDARAPANDIAN, KARTHIK	SPS Operations		Maintain South Pole Computing Hardware Infrastructure and operating systems		NSF M&O Core				0.75					0.75					
		SPTS Operations		Maintain South Pole Test System Hardware and Operating Systems		NSF M&O Core				0.25					0.25					
SOUNDARAPANDIAN, KARTHIK Total									1.00						1.00					
EN	BARNET, STEVE	Computing Resources		0.75 Maintain Core High Performance Computing Systems 0.25 Coordination and Support for Grid and distributed computing		NSF M&O Core						1.00			1.00					
		BARNET, STEVE Total													1.00	1.00				
	BOGEN, DAVID	Computing Resources		Maintain Data Center Infrastructure		NSF M&O Core						1.00			1.00					
		BOGEN, DAVID Total													1.00	1.00				
	MACKENZIE, CYNTHIA	Data Storage & Transfer		Transfer Data from S. Pole to UW Data Warehouse and Archive at S. Pole Maintain Data Transfer Software (SPADE) Maintain Data Warehouse Standards, Software (Ingest), Data Access (FTP), and Web Interface		NSF M&O Core						0.50				0.50				
		MACKENZIE, CYNTHIA Total													0.50	0.50				
		UW EN	Engineering and R&D Support		Engineering Support		NSF M&O Core				0.10					0.10				
	SPTS Operations		Maintain South Pole Test System Hardware and Operating Systems		NSF M&O Core						0.50			0.50						
	UW EN Total									0.10		0.50			0.60					
	WISNIEWSKI, PAUL	Computing Resources		Maintain Data Center Networking and Security		NSF M&O Core						0.75			0.75					
		SPS Operations		Networking and Security Maintenance		NSF M&O Core						0.25			0.25					
	WISNIEWSKI, PAUL Total											0.25		0.75	1.00					
	MA	LAITSCH, DENISE	DETECTOR OPERATIONS & MAINTENANCE		Budget in MRE		NSF M&O Core													
			LAITSCH, DENISE Total													0.88	0.88			
		MERCK, MARTIN	Administration		Computing Infrastructure Management		NSF M&O Core				1.00					1.00				
MERCK, MARTIN Total														1.00	1.00					
PAULOS, ROBERT		USAP Support		USAP Support		NSF M&O Core				0.25					0.25					
		PAULOS, ROBERT Total													0.25	0.25				
PELES, ADI		Administration		Resource Coordinator		NSF M&O Core				0.50					0.50					
		PELES, ADI Total													0.50	0.50				

## IceCube M&O Staffing Matrix sort by Institutions v9.0 2010.0915

Institution	Labor Cat.	Names	WBS L3	Tasks				Funds Source	WBS 2.1	WBS 2.2	WBS 2.3	WBS 2.4	WBS 2.5	Grand Total				
				Cat.	Description	Cat.	Description								Cat.	Description	Cat.	Description
				AD	Administration	GR	Graduate Student								PO	Postdoctoral Scientist	TE	Technician
CS	Computer Science Eng.	KE	Key Personnel/Faculty	SC	Scientist	WO	Winterover											
EN	Engineer	MA	Management	SE	Senior Engineer													
SE	GLOWACKI, DAVID	Data Acquisition	Maintain DAQ Software Systems (incl. triggers, DOM SW, etc. up to Event Builder)	NSF M&O Core		1.00							1.00					
	GLOWACKI, DAVID Total													1.00				
	LAUNDRIE, ANDREW	Engineering and R&D Support	EMI, Instrumentation, I/F	NSF M&O Core	0.25									0.25				
			Engineering Support	NSF M&O Core	0.65								0.65					
		SPTS Operations	Maintain South Pole Test System Hardware and Operating Systems	NSF M&O Core		0.10								0.10				
	LAUNDRIE, ANDREW Total													0.90				
	SANDSTROM, PERRY	Data Acquisition	Maintain DAQ Hardware (Hubs, DOR, Clocks, GPS,...)	NSF M&O Core		0.25								0.25				
		Engineering and R&D Support	EMI, Instrumentation, I/F	NSF M&O Core	0.25									0.25				
			Engineering Support	NSF M&O Core	0.25									0.25				
		SPS Operations	Maintain South Pole Computing Hardware Infrastructure and operating systems	NSF M&O Core		0.25								0.25				
	SANDSTROM, PERRY Total													0.50				
	AD	MALKUS, EVELYN	Education & Outreach	Education & Outreach Coordination	NSF M&O Core		0.75							0.75				
		MALKUS, EVELYN Total													0.75			
		RICHARDS, JOHN	Data Storage & Transfer	Maintain and Operate Data Storage Infrastructure	NSF M&O Core				1.00					1.00				
		RICHARDS, JOHN Total													1.00			
UW AD		Administration	Administrative Support	NSF M&O Core	0.50									0.50				
	Education & Outreach	Host Spring collaboration meeting	US Institutional Support	0.50									0.50					
UW AD Total													1.25					
TE	DIAZ-VELEZ, JUAN CAI	Core Software	Maintain Simulation Production Software	NSF M&O Core				0.00					0.00					
		Simulation Programs: diplopia	NSF M&O Core			0.80						0.80						
		Simulation Programs	Maintain Simulation Production Software	NSF M&O Core							0.20		0.20					
	DIAZ-VELEZ, JUAN CARLOS Total													0.80				
	FADIRAN, OLADIPO	Core Software	Maintain Data Processing Software	NSF M&O Core			0.20							0.20				
		Data Storage & Transfer	Transformation of Data for Long-Term Persistence and Archival, e.g., HDF5	NSF M&O Core			0.20							0.20				
			Simulation Production	0.30 Coordination of Simulation Production 0.30 Maintain production configurations, manage test production and maintain web portal.	NSF M&O Core					0.60					0.60			
	FADIRAN, OLADIPO Total													1.00				
	MCGUIRE, PAUL	Computing Resources	Maintain Data Center Infrastructure	NSF M&O Core			0.50							0.50				
		Data Storage & Transfer	Maintain and Operate Data Storage Infrastructure	NSF M&O Core			0.50							0.50				
MCGUIRE, PAUL Total													1.00					
MEADE, PATRICK	Data Production Processing	0.10 Unpacking, Decoding and Calibration of Raw Data in the North (Level1)	NSF M&O Core			0.00							0.00					
		0.15 Run Common Reconstructions on UW IceCube Compute Cluster (Level2)	NSF M&O Core			0.50							0.50					
		0.2 Unpacking, Decoding and Calibration of Raw Data in the North (Level1)	NSF M&O Core			0.50							0.50					
	Data Storage & Transfer	0.3 Run Common Reconstructions on UW IceCube Compute Cluster (Level2)	NSF M&O Core			0.50								0.50				
Transfer Data from S. Pole to UW Data Warehouse and Archive at S. Pole		NSF M&O Core				0.50							0.50					
MEADE, PATRICK Total													1.00					
UW TE	Computing Resources	Maintain Core High Performance Computing Systems	NSF M&O Core			0.44							0.44					
	Core Software	Maintain Data Processing Software	NSF M&O Core			0.30							0.30					
	Data Storage & Transfer	Transformation of Data for Long-Term Persistence and Archival, e.g., HDF5	NSF M&O Core			0.30								0.30				
		Maintain Data Warehouse Standards, Software (Ingest), Data Access (FTP), and Web Interface	NSF M&O Core			0.25								0.25				
UW TE Total													1.29					
WO	UW WO	Run Coordination	Operate Detector (Winter-Overs)	NSF M&O Core		3.00							3.00					
	UW WO Total													3.00				
<b>UW Total</b>									<b>6.88</b>	<b>10.44</b>	<b>10.54</b>	<b>0.80</b>	<b>2.45</b>	<b>31.11</b>				
UWRF	KE	MADSEN, JIM	Education & Outreach	Teachers' program and UWRF Upward Bound	US Institutional Support	0.10							0.10					
			Reconstruction/ Analysis tools	Cosmic ray shower simulations and reconstruction	US Institutional Support						0.10		0.10					
		MADSEN, JIM Total													0.10			
	SPICZAK, GLENN	IceTop Operations	IceTop tank Monitoring	US Institutional Support			0.03							0.03				
				US Institutional Support			0.03						0.03					
	SPICZAK, GLENN Total													0.03				
	SC	Tamburro, Alessio	IceTop Operations	IceTop tank Monitoring	US Institutional Support		0.03							0.03				
Reconstruction/ Analysis tools			Shower simulations, TankTop simulation	US Institutional Support							0.20		0.20					
Tamburro, Alessio Total													0.03					
TE	UWRF TE	Education & Outreach	Teachers Program	NSF M&O Core		0.15							0.15					
	UWRF TE Total													0.15				
<b>UWRF Total</b>									<b>0.25</b>	<b>0.05</b>	<b>14.68</b>	<b>3.73</b>	<b>7.88</b>	<b>51.70</b>				
<b>Grand Total</b>									<b>9.93</b>	<b>15.49</b>	<b>14.68</b>	<b>3.73</b>	<b>7.88</b>	<b>51.70</b>				

## IceCube M&O Staffing Matrix sort by Institutions v9.0 2010.0915

Institution	Labor Cat.	Names		WBS L3		Tasks				WBS 2.1 Program Management	WBS 2.2 Detector Maintenance & Operations	WBS 2.3 Computing & Data Management	WBS 2.4 Triggering & Filtering	WBS 2.5 Data Quality, Reconstruction & Simulation Tools	Grand Total		
		Cat.	Description	Cat.	Description	Cat.	Description	Cat.	Description								
		AD	Administration	GR	Graduate Student	PO	Postdoctoral Scientist	TE	Technician								
CS	Computer Science Eng.	KE	Key Personnel/Faculty	SC	Scientist	WO	Winterover										
EN	Engineer	MA	Management	SE	Senior Engineer												
ALBERTA	KE	GRANT, DARREN	Reconstruction/ Analysis tools	Maintenance of IceCube-Photonics interface									0.10	0.10			
			Simulation Production	WestGrid computing											0.10		
	GRANT, DARREN Total													0.10	0.20		
	PO	ALBERTA, PO	Reconstruction/ Analysis tools	Maintenance of IceCube-Photonics interface											0.30	0.30	
ALBERTA, PO Total													0.30	0.30			
<b>ALBERTA Total</b>														<b>0.10</b>	<b>0.40</b>	<b>0.50</b>	
BARBADOS	KE	Seunarine, Suruj	DATA QUALITY, RECONSTRUCTION & SIMULATION TOOLS	Analysis of flasher runs for ice calibration of saturation, and flasher and Standard Candle runs for absolute energy calibration for cascades.										0.15	0.15		
			Physics Filters	Work on cascade filter											0.15	0.15	
	Seunarine, Suruj Total														0.15	0.30	
<b>BARBADOS Total</b>														<b>0.15</b>	<b>0.15</b>	<b>0.30</b>	
BOCHUM	KE	BECKER, JULIA	Administration	Pubcom member					0.10						0.10		
		BECKER, JULIA Total							0.10						0.10		
	GR	Olivo, Martino	Simulation Programs	Update MMC from Java to C++											0.25	0.25	
		Olivo, Martino Total													0.25	0.25	
		UBOCHUM GR	Detector Monitoring	Detector Monitoring						0.03						0.03	
UBOCHUM GR Total									0.03					0.03			
<b>BOCHUM Total</b>											<b>0.10</b>	<b>0.03</b>		<b>0.25</b>	<b>0.38</b>		
BONN	KE	KOWALSKI, MAREK	Administration	Pubcom member					0.10						0.10		
			Physics Filters	cascades WG Co-Lead										0.25	0.25		
			TFT Coordination	TFT Board member										0.10	0.10		
	KOWALSKI, MAREK Total									0.10				0.35	0.45		
	PO	Boeser Sebastian	Run Coordination	Run Coordinator							0.50					0.50	
		Boeser Sebastian Total									0.50					0.50	
	GR	FRANCKOWIAK, ANNA	Physics Filters	Alert System for follow-up											0.10	0.10	
		FRANCKOWIAK, ANNA Total													0.10	0.10	
		PANKNIN, SEBASTIAN	Reconstruction/ Analysis tools	IC-40 L3 processing											0.20	0.20	
		PANKNIN, SEBASTIAN Total													0.20	0.20	
UBONN GR		Detector Monitoring	Detector Monitoring							0.03					0.03		
		Reconstruction/ Analysis tools	Reconstruction/ Analysis tools											0.20	0.20		
UBONN GR Total									0.03				0.20	0.23			
HOMRIER, ANDREAS		Physics Filters	Alert System for follow-up										0.10	0.10			
HOMRIER, ANDREAS Total													0.10	0.10			
<b>BONN Total</b>											<b>0.10</b>	<b>0.53</b>		<b>0.55</b>	<b>0.40</b>	<b>1.58</b>	
CHIBA	KE	YOSHIDA, SHIGERU	Physics Filters	EHE WG Lead										0.25	0.25		
		YOSHIDA, SHIGERU Total													0.25	0.25	
		CHIBA KE	Reconstruction/ Analysis tools	Maintain Romeo, EHE Simulations											0.20	0.20	
	CHIBA KE Total														0.20	0.20	
	SC	CHIBA SC	Reconstruction/ Analysis tools	Maintain Romeo, EHE Simulations, Maintain reconstruction projects (Portia), MC/Data comparison for EHE-filtered and IceTop events, Standard Candle Analysis											0.20	0.20	
		CHIBA SC Total													0.20	0.20	
	GR	ONO, MIO	Physics Filters	EHE Filters											0.15	0.15	
		ONO, MIO Total													0.15	0.15	
CHIBA GR		Detector Monitoring	Detector Monitoring							0.03					0.03		
		Reconstruction/ Analysis tools	Improve the Ice Model, Afterpulse Simulator, Standard Candle Analysis, Maintain reconstruction projects (Ophelia, ehe-star)											0.20	0.20		
CHIBA GR Total										0.03			0.20	0.23			
<b>CHIBA Total</b>														<b>0.03</b>	<b>0.40</b>	<b>0.60</b>	<b>1.03</b>
DESY	KE	SPIERING, CHRISTIAN	Administration	ExecCom member					0.15						0.15		
		SPIERING, CHRISTIAN Total								0.15						0.15	
		NAHNHAUER, ROLF	Engineering and R&D Support	Acoustic R&D Support												0.10	
		NAHNHAUER, ROLF Total														0.10	
		WALTER, MICHAEL	Simulation Production	Simulation Production Cluster								0.20				0.20	
	WALTER, MICHAEL Total										0.20				0.20		
	SC	BENABDERRAHMANE, LOFTI	Detector Monitoring	Deputy Monitoring Coordinator							0.20					0.20	
		BENABDERRAHMANE, LOFTI Total									0.20					0.20	
		DESY SC	Detector Monitoring	Detector Monitoring							0.06					0.06	
		DESY SC Total									0.06					0.06	
		SULANKE, K.-H.	Data Acquisition	DAQ Firmware Support							0.15					0.15	
		SULANKE, K.-H. Total									0.15					0.15	
		BERGMANN, JENS	Simulation Production	Simulation Production Cluster								0.25				0.25	
		BERGMANN, JENS Total										0.25				0.25	
	GR	FRANKE, ROBERT	Physics Filters	Online Filter for Alerts Rate Data Bank South Pole											0.10	0.10	
		FRANKE, ROBERT Total													0.10	0.10	
		DESY GR	Detector Monitoring	Detector Monitoring							0.12					0.12	
			Simulation Production	Simulation Production Cluster												0.15	
		DESY GR Total										0.12		0.15		0.27	
		MIDDELL, EIKE	Reconstruction/ Analysis tools	Cascade Reconstruction											0.30	0.30	
MIDDELL, EIKE Total													0.30	0.30			
ACHIM STOESSL	Detector Calibration	Flasher Analysis								0.20				0.20			
ACHIM STOESSL Total										0.20				0.20			

## IceCube M&O Staffing Matrix sort by Institutions v9.0 2010.0915

Institution	Labor Cat.	Names		WBS L3		Tasks		WBS 2.1 Program Management	WBS 2.2 Detector Maintenance & Operations	WBS 2.3 Computing & Data Management	WBS 2.4 Triggering & Filtering	WBS 2.5 Data Quality, Reconstruction & Simulation Tools	Grand Total		
		Cat.	Description	Cat.	Description	Cat.	Description							Cat.	Description
		AD	Administration	GR	Graduate Student	PO	Postdoctoral Scientist							TE	Technician
CS	Computer Science Eng.	KE	Key Personnel/Faculty	SC	Scientist	WO	Winterover								
EN	Engineer	MA	Management	SE	Senior Engineer										
DESY		EIKE MIDDELL	Detector Calibration	Flasher Analysis				0.10					0.10		
		<b>EIKE MIDDELL Total</b>							0.10					0.10	
		KISLAT, FABIAN	Computing Resources	Reconstruction Coordinator (acting), Maintain Reconstruction Framework						0.15				0.15	
		<b>KISLAT, FABIAN Total</b>								0.15				0.15	
	AD	DESY AD	Administration	Host Fall Collaboration Meeting					0.00					0.00	
	<b>DESY AD Total</b>								0.00					0.00	
	TE	DESY TE	Computing Resources	European Data Center -Distributed Computing and Labor						2.00				2.00	
	<b>DESY TE Total</b>								2.00					2.00	
	<b>DESY Total</b>								<b>0.25</b>	<b>0.83</b>	<b>2.75</b>	<b>0.20</b>	<b>0.30</b>	<b>4.33</b>	
	DORTMUND	SC	PIELOTH, DAMIAN	Computing Resources	Coordinate GRID computing in Germany									0.25	
<b>PIELOTH, DAMIAN Total</b>									0.25			0.25			
GR		DTMND GR	Detector Monitoring	Detector Monitoring					0.03					0.03	
			Simulation Production	Simulation Production						0.40				0.40	
<b>DTMND GR Total</b>								0.03	0.40				0.43		
		Milke, Natalie	Simulation Programs	Simulation Programs: noise-generator									0.20	0.20	
<b>Milke, Natalie Total</b>												0.20	0.20		
<b>DORTMUND Total</b>								<b>0.10</b>	<b>0.03</b>	<b>0.65</b>	<b>0.20</b>	<b>0.20</b>	<b>0.88</b>		
EPFL	KE	EPFL KE	Engineering and R&D Support	Acoustic R&D Support				0.10					0.10		
		<b>EPFL KE Total</b>							0.10					0.10	
	SC	EPFL SC	Reconstruction/ Analysis tools	SLF, Low Energy, Energy reconstruction (development)									0.25	0.25	
		<b>EPFL SC Total</b>											0.25	0.25	
	GR	EPFL GR	Detector Monitoring	Detector Monitoring					0.03					0.03	
		<b>EPFL GR Total</b>							0.03					0.03	
<b>EPFL Total</b>								<b>0.10</b>	<b>0.03</b>	<b>0.65</b>	<b>0.20</b>	<b>0.25</b>	<b>0.38</b>		
GENT	SC	UGENT SC	Engineering and R&D Support	Acoustic R&D Support				0.05					0.05		
			Simulation Programs	Support IceTop Simulations, IceTop Calibrations, IceTop Reconstruction								0.10	0.10		
		<b>UGENT SC Total</b>								0.05			0.10	0.15	
	GR	UGENT GR	Detector Monitoring	Detector Monitoring					0.03					0.03	
			Engineering and R&D Support	Acoustic R&D Support				0.05						0.05	
			Simulation Programs	Support IceTop Simulations, IceTop Calibrations, IceTop Reconstruction								0.40		0.40	
<b>UGENT GR Total</b>							0.05	0.03			0.40		0.48		
<b>GENT Total</b>								<b>0.10</b>	<b>0.03</b>	<b>0.65</b>	<b>0.50</b>	<b>0.63</b>			
HUMBOLDT	SC	HUMB SC	Detector Monitoring	Detector Monitoring					0.03				0.03		
			Reconstruction/ Analysis tools	Reconstruction/ Analysis tools								0.10	0.10		
		<b>HUMB SC Total</b>								0.03			0.10	0.13	
	WALDENMAIER, TILO	IceTop Operations	IceTop Operations					0.10					0.10		
		Physics Filters	CR-WG Filter							0.15			0.15		
		CR-WG Lead							0.25			0.25			
<b>WALDENMAIER, TILO Total</b>							0.10	0.40				0.50			
<b>HUMBOLDT Total</b>								<b>0.00</b>	<b>0.13</b>	<b>0.40</b>	<b>0.10</b>	<b>0.63</b>			
MAINZ	KE	Köpke, Lutz	Administration	ExecCom member				0.15					0.15		
		<b>Köpke, Lutz Total</b>							0.15					0.15	
	SC	AHRENS, JENS	Simulation Production	Simulation Production						0.15			0.15		
		<b>AHRENS, JENS Total</b>								0.15				0.15	
	GR	Kroll, Gösta	SuperNova Operations	SuperNova Operations					0.50					0.50	
		<b>Kroll, Gösta Total</b>							0.50					0.50	
		Lünemann, Jan	Reconstruction/ Analysis tools	Reconstruction Tools								0.20		0.20	
		<b>Lünemann, Jan Total</b>										0.20		0.20	
		SCHATTO, KAI	Detector Monitoring	Monitoring IceCube Live integration					0.35					0.35	
		<b>SCHATTO, KAI Total</b>							0.35					0.35	
		UM GR	Detector Monitoring	Detector Monitoring					0.05					0.05	
	<b>UM GR Total</b>							0.05					0.05		
	WIEBE, KLAUS	Simulation Production	Simulation Production						0.30				0.30		
SuperNova Operations		SuperNova IceCube Live integration						0.10				0.10			
<b>WIEBE, KLAUS Total</b>							0.10	0.30				0.40			
<b>MAINZ Total</b>								<b>0.15</b>	<b>1.00</b>	<b>0.45</b>	<b>0.20</b>	<b>1.80</b>			
MPI	KE	RESCONI, ELISA	Administration	Analysis Coordinator				0.50					0.50		
		<b>RESCONI, ELISA Total</b>						0.50					0.50		
	PO	MPI PO	Data Quality	Data Quality & DeepCore								0.60	0.60		
		<b>MPI PO Total</b>										0.60	0.60		
GR	MPI GR	Detector Monitoring	Detector Monitoring					0.05					0.05		
	<b>MPI GR Total</b>							0.05					0.05		
<b>MPI Total</b>								<b>0.50</b>	<b>0.05</b>	<b>0.60</b>	<b>0.60</b>	<b>1.15</b>			

## IceCube M&O Staffing Matrix sort by Institutions v9.0 2010.0915

Institution	Labor Cat.	Names		WBS L3		Tasks				WBS 2.1	WBS 2.2	WBS 2.3	WBS 2.4	WBS 2.5	Grand Total
		Cat.	Description	Cat.	Description	Cat.	Description	Cat.	Description	Program Management	Detector Maintenance & Operations	Computing & Data Management	Triggering & Filtering	Data Quality, Reconstruction & Simulation Tools	
		AD	Administration	GR	Graduate Student	PO	Postdoctoral Scientist	TE	Technician						
CS	Computer Science Eng.	KE	Key Personnel/Faculty	SC	Scientist	WO	Winterover								
EN	Engineer	MA	Management	SE	Senior Engineer	WO	Winterover								
RWTH	KE	WIEBUSCH, CHRISTOPH		Administration	Coordinate BMBF Funding				0.10					0.10	
		WIEBUSCH, CHRISTOPHER Total						0.10					0.10		
	SC	RWTH SC		Core Software	Maintain Reconstruction Framework						0.10			0.10	
				Engineering and R&D Support	Acoustic R&D Support						0.10			0.10	
				Simulation Production	Simulation Production on cluster/GRID						0.10	0.20			0.10
	RWTH SC Total						0.10	0.20				0.30			
	PO	BOERSMA, DAVID RWT		Physics Filters	Gal Cen Filter (Moon Filter) muon channel WG Co. Chair								0.15	0.25	0.15
				Reconstruction/ Analysis tools	Reconstruction Coordinator								0.15	0.15	
				BOERSMA, DAVID RWTH Total								0.40	0.15	0.55	
	GR	RWTH GR		Core Software	Maintain Reconstruction Framework						0.15			0.15	
				Detector Monitoring	Monitoring (3 weeks)				0.09				0.09		
				Reconstruction/ Analysis tools	Reconstruction Software								0.30	0.30	
				Simulation Production	Simulation Production on cluster/GRID						0.85				0.85
				RWTH GR Total						0.09	1.00	0.30			1.39
	SCHUKRAFT, ANNE		Data Production Processing	Photonics Production						0.25				0.25	
	SCHUKRAFT, ANNE Total								0.25				0.25		
	WALLRAFF, MARIUS		Reconstruction/ Analysis tools	New Feature Extractor								0.50	0.50		
	WALLRAFF, MARIUS Total										0.50	0.50			
	<b>RWTH Total</b>								<b>0.20</b>	<b>0.09</b>	<b>1.45</b>	<b>0.40</b>	<b>0.95</b>	<b>3.09</b>	
	SU	KE	HULTH, PER OLOF		Administration	ExecCom member				0.20					0.20
					ICB Member					0.05					0.05
					Outreach					0.15					0.15
			HULTH, PER OLOF Total						0.40	0.25				0.65	
			HULTQVIST, KLAS		Simulation Programs	Photonics/Simulation Work, hit-maker								0.15	0.15
HULTQVIST, KLAS Total											0.15	0.15			
SC		WALCK, CHRISTIAN		Administration	Pubcom member				0.10				0.10		
				Simulation Programs	Photonics/Simulation Work								0.05	0.05	
				WALCK, CHRISTIAN Total						0.10				0.05	0.15
		FINLEY, CHAD SU		Administration	Coordination with LIGO				0.10				0.10		
				Physics Filters	Point Source WG Lead						0.25		0.25		
				Simulation Programs	Simulation Programs: neutrino-generator								0.20	0.20	
FINLEY, CHAD SU Total						0.10	0.25		0.20			0.55			
SEO, SEON-HEE		Physics Filters	Develop & verify filters						0.05		0.05				
SEO, SEON-HEE Total								0.05		0.15	0.20				
SU SC		Computing Resources	Computing Resources						0.50		0.50				
SU SC Total								0.50				0.50			
GR		DANNINGER, MATTIAS		Physics Filters	WIMP Trigger & Filter						0.15		0.15		
				DANNINGER, MATTIAS Total								0.15		0.15	
				JOHANSSON, HENRIK		Physics Filters	UHE Trigger & Filter						0.10		0.10
		JOHANSSON, HENRIK Total		Simulation Production	GRID/Simulation production & development				0.20				0.20		
		SU GR		Detector Monitoring	Detector Monitoring				0.06				0.06		
		SU GR Total						0.06				0.06			
<b>SU Total</b>								<b>0.60</b>	<b>0.06</b>	<b>0.70</b>	<b>0.80</b>	<b>0.55</b>	<b>2.71</b>		
UC	SC	GROSS, ANDREAS		DATA QUALITY, RECONSTRUCTION & SIMULATION TOOLS	Data Quality, Reco. & Sim. Tools Coordinator ("Low-level" Analysis Coordinator)						0.50		0.50		
		GROSS, ANDREAS Total								0.50		0.50			
	GR	UC GR		Detector Monitoring	Detector Monitoring				0.02				0.02		
		UC GR Total		Run Coordination	Flasher Runs				0.10				0.10		
<b>UC Total</b>								<b>0.12</b>		<b>0.50</b>		<b>0.62</b>			
ULB	KE	BERTRAND, DANIEL		Administration	ExecCom member				0.20					0.20	
		BERTRAND, DANIEL Total						0.20				0.20			
		HANSON, KAEL ULB		Data Acquisition	Data Acquisition				0.20				0.20		
				Engineering and R&D Support	EMI/R&D				0.10				0.10		
	HANSON, KAEL ULB Total		TFT Coordination	TFT Board member						0.10		0.10			
	HANSON, KAEL ULB Total						0.10	0.20	0.10			0.40			
	PO	Marotta, Alberto		Core Software	Maintain and Operate Database Systems (I3OmDb)						0.20		0.20		
		Marotta, Alberto Total		Simulation Production	Computer Cluster - simulation						0.30		0.30		
	Marotta, Alberto Total								0.50				0.50		
	GR	ULB GR		Detector Monitoring	Detector Monitoring				0.03				0.03		
ULB GR Total		Physics Filters	Study of Tau Filters at South Pole						0.10		0.10				
ULB GR Total						0.03		0.10				0.13			
<b>ULB Total</b>								<b>0.30</b>	<b>0.23</b>	<b>0.50</b>	<b>0.20</b>	<b>1.23</b>			
UMH	GR	KOHENEN, GEORGE		Computing Resources	IC database management						0.30		0.30		
		KOHENEN, GEORGE Total		Detector Monitoring	Detector Monitoring				0.03				0.03		
		KOHENEN, GEORGE Total						0.03		0.30		0.33			
<b>UMH Total</b>								<b>0.03</b>	<b>0.30</b>			<b>0.33</b>			



**IceCube M&O Staffing Matrix sort by Institutions v9.0 2010.0915**

Institution	Labor Cat.	Names		WBS L3		Tasks		WBS 2.1 Program Management	WBS 2.2 Detector Maintenance & Operations	WBS 2.3 Computing & Data Management	WBS 2.4 Triggering & Filtering	WBS 2.5 Data Quality, Reconstruction & Simulation Tools	Grand Total		
		Cat.	Description	Cat.	Description	Cat.	Description							Cat.	Description
		AD	Administration	GR	Graduate Student	PO	Postdoctoral Scientist							TE	Technician
CS	Computer Science Eng.	KE	Key Personnel/Faculty	SC	Scientist	WO	Winterover								
EN	Engineer	MA	Management	SE	Senior Engineer										
UOX	KE	SARKAR, SUBIR	Detector Monitoring	Detector Monitoring				0.02							
			Simulation Programs	Yellow Book-maintenance								0.10	0.10		
		SARKAR, SUBIR Total							0.02			0.10	0.12		
<b>UOX Total</b>								<b>0.02</b>				<b>0.10</b>	<b>0.12</b>		
UU	KE	BOTNER, OLGA	Administration	Outreach			0.05						0.05		
			Pubcom Chair				0.40					0.40			
		BOTNER, OLGA Total						0.45					0.45		
		de los HEROS, CARLOS	Physics Filters	WIMP WG Lead							0.25		0.25		
			TFT Coordination	TFT Board member							0.10		0.10		
		de los HEROS, CARLOS Total									0.35		0.35		
	HALLGREN, ALLAN	Administration	Outreach			0.05						0.05			
		Engineering and R&D Support	Acoustic R&D Support			0.10						0.10			
		Physics Filters	online filter development							0.05		0.05			
		HALLGREN, ALLAN Total						0.25		0.05		0.30			
	PO	MILLER, JONATHAN	Simulation Programs	Simulation Programs: photonics								0.05	0.05		
			Detector Calibration	Flasher Calibration			0.20					0.20			
	MILLER, JONATHAN Total						0.20				0.05	0.25			
	GR	UU GR	Detector Monitoring	Detector Monitoring					0.03				0.03		
			UU GR Total						0.03				0.03		
HENRIC, TAAVOLA		Physics Filters	Online filter development & testing						0.10		0.10				
HENRIC, TAAVOLA Total									0.10	0.10					
Strom, Rickard		Physics Filters	Online filter development & testing						0.10		0.10				
Strom, Rickard Total								0.10		0.10					
<b>UU Total</b>								<b>0.70</b>	<b>0.23</b>		<b>0.60</b>	<b>0.05</b>	<b>1.58</b>		
VUB	KE	VUB KE	Data Quality	data quality verification							0.25	0.25			
			Reconstruction/ Analysis tools	development of reconstruction tools (IcePack framework)							0.25	0.25			
		VUB KE Total										0.50	0.50		
	PO	Strahler, Erik	Data Quality	verification Deep Core data quality								0.25	0.25		
			Simulation Production	simulation of ice properties and DOM sensitivities					0.25			0.25			
		Strahler, Erik Total								0.25		0.50			
		VUB PO	Detector Monitoring	Monitoring shifts				0.06				0.06			
		VUB PO Total						0.06				0.06			
		Bose, Debanjan	Data Quality	verification Deep Core data quality								0.25	0.25		
			Reconstruction/ Analysis tools	muon track reconstruction in IceCube and DeepCore, waveform feature extractor								0.25	0.25		
		Bose, Debanjan Total										0.50	0.50		
	Labare, Mathieu	Data Quality	verification Deep Core data quality								0.13	0.13			
		Physics Filters	Filter for Southern sky muons						0.25			0.25			
	Reconstruction/ Analysis tools	muon track reconstruction in IceCube and DeepCore									0.13	0.13			
		Labare, Mathieu Total								0.25	0.25	0.50			
Singh, Kalpana	Data Quality	verification Deep Core data quality								0.13	0.13				
	Physics Filters	Filter for Southern sky muons						0.25			0.25				
	Reconstruction/ Analysis tools	muon track reconstruction in IceCube and DeepCore, waveform feature extractor								0.13	0.13				
Singh, Kalpana Total								0.25	0.25	0.50					
GR	VUB GR	Detector Monitoring	Detector Monitoring					0.03				0.03			
		VUB GR Total						0.03				0.03			
<b>VUB Total</b>								<b>0.09</b>	<b>0.25</b>	<b>0.50</b>	<b>1.75</b>	<b>2.59</b>			
WUPPERTAL	KE	HELBING, KLAUS	Administration	Speakers Comm member			0.10					0.10			
			Engineering and R&D Support	R&D Lead			0.10					0.10			
		HELBING, KLAUS Total						0.20				0.20			
	WUPPERTAL KE	Engineering and R&D Support	RFI								0.10	0.10			
		WUPPERTAL KE Total						0.10				0.10			
	PO	KARG, TIMO	Engineering and R&D Support	Acoustic Lead			0.10					0.10			
			Simulation Production	Simulation Production					0.20			0.20			
	KARG, TIMO Total						0.10		0.20		0.30				
	GR	WUPPERTAL GR	Detector Monitoring	AURA, SPATS, surface antenna operations (RICE)				0.45				0.45			
			Physics Filters	New SUSY Filter				0.15				0.15			
Reconstruction/ Analysis tools			New SUSY Reconstruction, Simulation, Propagation, Monopole, Photonics						0.20		0.20				
Simulation Production			Simulation Production							0.50	0.50				
WUPPERTAL GR Total							0.20			0.20					
<b>WUPPERTAL Total</b>								<b>0.40</b>	<b>0.60</b>	<b>0.20</b>	<b>0.20</b>	<b>0.50</b>	<b>2.10</b>		
<b>Grand Total</b>								<b>3.50</b>	<b>4.16</b>	<b>7.55</b>	<b>4.40</b>	<b>8.30</b>	<b>27.91</b>		