

PhyStat- ν Workshop on Statistical Issues in Experimental Neutrino Physics

Monday 30 May 2016 - Wednesday 01 June 2016

Programme

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Monday 30 May 2016

Registration (08:30-09:00)

Introductory Lecture (09:00-10:30)

time	title	presenter
09:00	Introduction to Statistics for PhyStat- ν (01h20')	LYONS, Louis (Imperial College London)

Registration and Tea and Coffee (10:30-11:00)

Opening Session (11:00-12:10)

Introductory Overview, with talks on general neutrino physics and the topics to be discussed at the workshop

time	title	presenter
11:00	Welcome to PhyStat- ν and Logistics (00h15')	Prof. HARTZ, Mark (Kavli IPMU (WPI), The University of Tokyo/TRIUMF)
11:15	Introduction to the Workshop (00h10')	Dr. UCHIDA, Yoshi (Imperial College London)
11:25	The Current Status of Neutrino Physics (00h45')	PETCOV, Sergeuy

Lunch - (12:10-13:30)

Statistical Methods at Current Experiments (13:30-16:40)

Overview talks on how current and recent experiments are treating their data

time	title	presenter
13:30	Long-Baseline Accelerator Oscillation Experiments (00h40')	Dr. KABOTH, Asher (RHUL)
14:10	Short- and Medium-Baseline Reactor Oscillation Experiments (00h40')	SEO, Sunny (Seoul National University)
14:50	Tea and Coffee (00h30')	
15:20	Direct Neutrino Mass Measurements Using Weak Decays (00h40')	Dr. KLEESIEK, Marco (KIT)
16:00	Solar Neutrinos (00h40')	Dr. SMY, Michael (University of California, Irvine)

Short Poster Talks (16:40-17:40)

Short introductory talks from poster presenters

time	title	presenter
16:40	Estimation of neutrino oscillation parameters with Markov Chain Monte Carlo (00h06')	Ms. HAEGEL, Leïla (Université de Genève)

16:46	Statistical techniques used for neutrino oscillation analyses with the VALOR framework (00h06')	SGALABERNA, Davide (University of Geneva)
16:52	Anti- ν_e Appearance at T2K using VALOR (00h06')	Mr. SHAH, raj (STFC, UK)
16:58	Tuning generators to the global neutrino cross-section dataset. (00h06')	Mr. STOWELL, John (University of Sheffield)
17:04	Empirical Parametrisations of Neutrino Oscillations (00h06')	Dr. LITCHFIELD, Phillip (Imperial College London) Dr. LITCHFIELD, Phillip (Imperial College London)
17:10	Neutrino Oscillation on Epicycles (00h06')	XU, Benda (RCNS, Tohoku Univ., Japan)
17:16	Study of the Neutrino Oscillation at Very Short Baseline (00h06')	Mr. KO, Youngju (Chung-Ang University)
17:22	Optimization of detector design of NuPRISM, a new water-Cherenkov neutrino near-detector (00h06')	YOSHIDA, Tomoyo (Tokyo Institute of Technology)
17:28	Boosted Decision Tree Approach to Track Finding in the COMET Experiment (00h06')	Mr. GILLIES, Ewen (Imperial College London)

Pre-Reception Talk (17:40-18:00)

time	title	presenter
17:40	Welcome from the Director (00h20')	MURAYAMA, Hitoshi (Kavli IPMU)

Poster Session and Drinks Reception (18:00-20:00)

Tuesday 31 May 2016

Statistical Methods at Current Experiments (09:00-11:30)

Overview talks on how current and recent experiments are treating their data

time	title	presenter
09:00	Neutrino Nucleus Cross Section Experiments (00h40')	Dr. WASCKO, Morgan (Imperial College London)
09:40	Atmospheric Neutrinos (00h40')	DE ANDRE, Joao Pedro (Michigan State University)
10:20	Tea and Coffee (00h30')	
10:50	Double Beta Decay (00h40')	Dr. SHIMIZU, Itaru (Tohoku University)

Contributed and invited talks and discussions on statistical methods and issues (11:30-12:40)

time	title	presenter
11:30	Combination of Current and Historical Cross Section Data (00h35')	Dr. WILKINSON, Callum (Bern)
12:05	Statistical Issues in Neutrino Event Reconstruction (00h35')	Dr. CALLAND, Richard (IPMU)

Lunch - (12:40-14:00)

Contributed and invited talks and discussions on statistical methods and issues (14:00-18:00)

time	title	presenter
14:00	Searching for PeV neutrinos with IceCube (00h35')	Dr. LU, Lu (Chiba University)
14:35	Event Classification (00h35')	IKEDA, Shiro (Institute of Statistical Mathematics)
15:10	Computational Aspects of Statistical Methods (00h35')	BETANCOURT, Michael (University of Warwick)
15:45	Tea and Coffee (00h30')	
16:15	Cosmological Constraints on Neutrino Properties (00h35')	VILLAESCUSA-NAVARRO, Francisco (INAF-Trieste)
16:50	Three-Neutrino Mixing Fits (00h35')	JOHANNES, Bergstrom (Universitat de Barcelona)
17:25	Frequentist & Bayesian Bounds and Data Presentation (00h35')	BILLER, Steve (University of Oxford)

Travel to Dinner Venue (18:00-18:30)

Workshop Dinner - (18:30-21:00)

Wednesday 01 June 2016

Contributed and invited talks and discussions on statistical methods and issues

(09:00-13:15)

time	title	presenter
09:00	Status of Global Sterile Neutrino Fits (00h35')	COLLIN, Gabriel (Massachusetts Institute of Technology)
09:35	Neutrino Mass Hierarchy at JUNO and Related Statistical Issues (00h35')	LI, Yufeng (Institute of High Energy Physics)
10:10	Tea and Coffee (00h30')	
10:40	Sensitivity to the Neutrino Mass Hierarchy (00h35')	CIUFFOLI, Emilio (IMP, CAS)
11:15	The KM3NeT/ORCA detector (00h35')	Dr. BRUIJN, Ronald (University of Amsterdam/Nikhef)
11:50	Generative Modelling as a Basis for Statistics (00h40')	BETANCOURT, Michael (University of Warwick)
12:30	Multiple Hypothesis Testing and Testing One Hypothesis Multiple Times: a unified (re)view (00h45')	Ms. ALGERI, Sara (Imperial College London)

Lunch - (13:15-14:15)

Panel Discussion (14:15-16:00)

Discussion on matters arising during the workshop

time	title	presenter
14:15	Panel Discussion (01h15')	Ms. ALGERI, Sara (Imperial College London) BETANCOURT, Michael (University of Warwick) KARLEN, Dean (University of Victoria) Dr. WORCESTER, Elizabeth (BNL) Dr. UCHIDA, Yoshi (Imperial College London)
15:30	Tea and Coffee (00h30')	

Closing Session (16:00-18:30)

Experimental Summary talk by Bob Cousins, Theoretical Summary

time	title	presenter
16:00	Statistician's Summary (00h45')	VAN DYK, David (Imperial College London)
16:45	Physicist's Summary (00h45')	COUSINS, Robert (UCLA)
17:30	Closing Statements (01h00')	