

Scientific Program of NOW 2018



NEUTRINO OSCILLATION WORKSHOP
ROSA MARINA (OSTUNI, ITALY)
SEPTEMBER 9-16, 2018

Sunday 9
Arrival and Registration

Monday 10
Morning:

Session I (plenary): Oscillation parameters: Present

Chair: Yury Kudenko

Time	Speaker	Title
8.30 - 8.40	Gianluigi Fogli	Welcome to NOW 2018
8.40 - 9.15	Eric Zimmerman	T2K latest results
9.15 - 9.50	Matthew Strait	NOVA latest results
coffee break (25')		
10.15 - 10.50	Cristovao Vilela	Atmospheric neutrino oscillations
10.50 - 11.25	Zhe Wang	Reactor neutrino oscillations
11.25 - 12.00	Patrick Huber	Reactor spectral shape challenges

Afternoon:

Session I (parallel) Oscillation parameters: Present Conveners: Inés Gil-Botella and Yoshi Uchida			Session V (parallel) Particle physics in the Cosmos Conveners: Karoline Schaeffner and Basudeb Dasgupta		
Time	Speaker	Title	Time	Speaker	Title
16.00 – 16.25	Ivan Martinez-Soler	Global status of three-neutrino mixing	16.00 – 16.25	Josef Pradler	Dark radiation: 21 cm signals and laboratory tests
16.25 – 16.50	Andrii Terliuk	Atmospheric ν oscillations with IceCube	16.25 – 16.50	Subhjit Ghosh	Dark ν interactions make GWs blue
16.50 – 17.15	Juergen Brunner	ANTARES atmospheric ν oscillations	16.50 – 17.15	Luca Vecchi	Exotic ν dark matter interactions
coffee break (25')					
17.40 – 18.05	Gabriele Sirri	Final results from OPERA	17.40 – 18.05	Joern Kersten	Small-scale crisis in cosmology - sterile ν to the rescue?
18.05 – 18.30	Michael Shaevitz	Updated electron ν appearance results from MiniBooNE	18.05 – 18.30	Stefano Morisi	Neutrino phenomenology from leptogenesis
18.30 – 18.55	Xiao Luo	MicroBooNE	18.30 – 18.55	Giorgio Arcadi	Leptogenesis and dark matter in low energy see-saw
18.55 – 19.20	Gianluca Raselli	Sterile ν searches with the ICARUS detector	18.55 – 19.20	Ranjan Laha	Diffuse axion-like particle searches

Tuesday 11

Morning:

Session II (plenary): Oscillation parameters: Future

Chair: Mike Shaevitz

Time	Speaker	Title
8.40 – 9.15	Jose Valle	Neutrino masses and mixings: Theory challenges
9.15 - 9.50	Nuno Barros	DUNE: prospects for CPV and Mass Ordering
coffee break (25')		
10.15 - 10.50	Gioacchino Ranucci	JUNO Oscillation Physics Program
10.50 - 11.25	Dorothea Samtleben	Prospects for mass ordering via atmospheric neutrinos
11.25 - 12.00	Yury Kudenko	The Hyper-Kamiokande Project

Afternoon:

(note early beginning of sessions)

Session II (parallel) Oscillation parameters: Future Conveners: Elizabeth Worcester and Jacobo Lopez-Pavon			Session III (parallel) Multimessenger astrophysics Conveners: Manuela Vecchi and Markus Ahlers		
Time	Speaker	Title	Time	Speaker	Title
15.00 – 15.25	Edward Leming	SNO+	15.00 – 15.25	Elisabetta Bissaldi	Multimessenger observations with the Fermi satellite
15.25 – 15.50	Anatael Cabrera	Physics potential of the novel LiquidO technique	15.25 – 15.50	Andrew Taylor	Multimessenger observations with IACTs
15.50 – 16.15	Tord Ekelof	ESSnuSB	15.50 – 16.15	Gerd Kunde	Multimessenger observations with HAWC
16.15 – 16.40	Fabio Pupilli	ENUBET	16.15 – 16.40	Francesco Capozzi	Distinguishing SN ν equalization from a pure MSW effect
16.40 – 17.05	Maurizio Bonesini	MICE/NuStorm	16.40 – 17.05	Rasmus Hansen	Extended neutrinosphere effects on SN ν oscillations

Excursion to Ostuni (17:30 - 20:00)

Dinner with typical Apulia products (20:30)

Wednesday 12

Morning:

Session III (plenary): Multimessenger astrophysics

Chair: Manfred Lindner

Time	Speaker	Title
8.40 - 9.15	Claudio Kopper	Highest-energy neutrinos: Detection and interpretation
9.15 - 9.50	Ian Harry	GW detection in a multimessenger context
coffee break (25')		
10.15 - 10.50	Matthias Kadler	Gamma rays in a multimessenger context
10.50 - 11.25	Giovanni Ambrosi	Charged cosmic rays
11.25 - 12.00	Shunsaku Horiuchi	Multimessenger physics from astrophysical sources

Afternoon:

Session III (parallel) Multimessenger astrophysics Conveners: Manuela Vecchi and Markus Ahlers			Session I (parallel) Oscillation parameters: Present Conveners: Inés Gil-Botella and Yoshi Uchida		
Time	Speaker	Title	Time	Speaker	Title
16.00 – 16.25	Fiorenza Donato	Galactic cosmic ray anomalies	16.00 – 16.25	Thiago Sogo Bezerra	Double Chooz results at the double detector phase
16.25 – 16.50	Martin Lemoine	What are the sources of UHE CRs?	16.25 – 16.50	Gemma Testera	Results from Borexino on solar and geo-neutrinos
16.50 – 17.15	Rogério de Almeida	Observation of UHE CR anisotropies with Auger	16.50 – 17.15	Jordi Salvado	Neutrino tomography of the earth
coffee break (25')					
17.40 – 18.05	Marek Kowalski	Next-Generation IceCube	17.40 – 18.05	Margherita Buizza Avanzini	T2K ν -nucleus cross section results
18.05 – 18.30	Maurizio Spurio	Latest results from ANTARES	18.05 – 18.30	Jorge Chaves	MINERvA results
18.30 – 18.55	Rosa Coniglione	First results and perspectives of KM3NeT/ARCA	18.30 – 18.55	Matej Pavin	NA61/SHINE measurements for ν physics
18.55 – 19.20	Giulia Pagliaroli	Combined search of MeV ν s and GWs from astro sources	18.55 – 19.20	Clementina Agodi	New results from the NUMEN project

Social event (after dinner)

Thursday 13

Full day excursion

Light dinner (21:00)

Friday 14

Morning:

Session IV (plenary): Neutrino masses, states and interactions

Chair: José Valle

Time	Speaker	Title
8.40 - 9.15	Manfred Lindner	New neutrino states and interactions
9.15 - 9.50	Victoriya Sergeyeva	Light sterile neutrino oscillation searches
coffee break (25')		
10.15 - 10.50	Guido Drexlin	Direct neutrino mass searches
10.50 - 11.25	Konstantin Gusev	Neutrinoless double beta decay: Experimental challenges
11.25 - 12.00	Fedor Simkovic	Neutrinoless double beta decay: Theory challenges

Afternoon:

Session IV (parallel) Neutrino masses, states and interactions Conveners: Monica Sisti and Stefano Gariazzo			Session II (parallel) Oscillation parameters: Future Conveners: Elizabeth Worcester and Jacobo Lopez-Pavon		
Time	Speaker	Title	Time	Speaker	Title
16.00 – 16.25	Yufeng Li	Status of eV-scale sterile neutrinos	16.00 – 16.25	Callum Wilkinson	Measurements of ν -nucleus scatterings
16.25 – 16.50	Dmitry Svirida	Searches for sterile neutrinos at the DANSS experiment	16.25 – 16.50	Monireh Kabirnezhad	Neutrino-nucleus interaction in future expts
16.50 – 17.15	Leonidas Kalousis	SoLid: Search for oscillations with a Li-6 detector	16.50 – 17.15	Osamu Yasuda	Systematics in T2HK/T2HKK/DUNE
coffee break (25')					
17.40 – 18.05	Yoshihito Gando	Neutrinoless double beta decay search with KamLAND-Zen	17.40 – 18.05	Sanjib Agarwalla	Addressing ν mixing models with T2HK and DUNE
18.05 – 18.30	Christoph Wiesinger	Recent results from GERDA Phase II	18.05 – 18.30	Andrea Scarpelli	ProtoDUNE and dual-phase LarTPC
18.30 – 18.55	Paolo Gorla	Latest results from the CUORE experiment	18.30 – 18.55	Matheus Hostert	Neutrino trident production at near detectors
18.55 – 19.20	Nicola Casali	CUPID-0: cryogenic calorimeters with light and heat read-out for $0\nu\beta\beta$ searches	18.55 – 19.20	Josu Hernandez-Garcia	Non-unitarity/sterile ν in oscillation experiments

Social dinner

Saturday 15

Morning:

Session V (plenary): Particle physics in the Cosmos

Chair: John Beacom

Time	Speaker	Title
8.40 - 9.15	Yvonne Wong	Neutrinos in Cosmology
9.15 - 9.50	Joachim Kopp	Learning about Dark Matter from the Stars
coffee break (25')		
10.15 - 10.50	Carsten Rott	Dark matter and neutrinos
10.50 - 11.25	Javier Redondo	Alternative dark matter candidates
11.25 - 12.00	Grayson Rich	Coherent neutrino-nucleus scattering

Afternoon:

Session V (parallel) Particle physics in the Cosmos Conveners: Karoline Schaeffner and Basudeb Dasgupta			Session IV (parallel) Neutrino masses, states and interactions Conveners: Monica Sisti and Stefano Gariazzo		
Time	Speaker	Title	Time	Speaker	Title
16.00 – 16.25	Johannes Rothe	CEnNS at the low-energy frontier in NU-CLEUS	16.00 – 16.25	Valerian Sibille	First tritium results of the KATRIN analysis
16.25 – 16.50	Julian Heeck	Majorons as cold light dark matter	16.25 – 16.50	Elena Ferri	The HOLMES experiment: status and perspectives
16.50 – 17.15	Marco Selvi	XENON 1T results	16.50 – 17.15	Andrea Romanino	Unbroken flavour symmetry vs lepton masses and mixings
coffee break (25')					
17.40 – 18.05	Philippe Gros	Direct detection of light WIMPs with NEWS-G	17.40 – 18.05	Alexander Studenikin	Magnetic moment of the neutrino
18.05 – 18.30	Luca Pattavina	Light dark matter investigation with CRESST	18.05 – 18.30	Carlo Giunti	Neutrino EM properties from coherent elastic ν -nucleus scattering
18.30 – 18.55	Natalia Di Marco	Status and results of the COSINUS project	18.30 – 18.55	Sebastian Zając	Lepton masses and mixing in Two-Higgs-doublet model
Concluding Talk					
Time	Speaker	Title			
18.55 – 19.30	John Beacom	Concluding Talk			
	NOW 2018 L.O.C.	Acknowledgments			

Sunday 16

Departures