Daily schedule for Miami topical physics conference 12-19 December 2025

Please point out any corrections by sending email to

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This version incorporates all modifications as of

12/2/2025 12:08

This is a tentative schedule. Exact times may change.
Please *reload* this file occasionally to see any changes.
Times shown here are Miami Time = Eastern Standard Time = UTC - 5:00.

Friday 12 December

10:00-10:30	Arrival		
10:30-11:00		Arrival & Registration	
11:00-11:30			
11:30-12:00			
12:00-12:30			
12:30-1:00			
1:00-1:30		*Lunch Break*	*(Lunch is **not** provided by the organizers.)*
1:30-2:00			
2:00-2:30			
2:30-3:00			
3:00-3:30	Exordium	Curtright	Welcome and Introduction
3:30-4:00		Hoq	Scalar Field Theories with Non-Polynomial Lagrangians
4:00-4:30		Alshal	TBD
4:30-5:00			
5:00-5:30			

Saturday 13 December

10:00-10:30	LHC	Chiodini	Overview of Recent Results from the ATLAS Experiment
10:30-11:00		Stelzer	Highlights on Higgs Physics with ATLAS
11:00-11:30		Romano	Highlights of SM Measurements Including Top with the ATLAS Experiment at the LHC
11:30-12:00		Otero y Garzón	Recent Searches for New Phenomena with the ATLAS Detector
12:00-12:30			
12:30-1:00			
1:00-1:30		*Lunch Break*	*(Lunch is **not** provided by the organizers.)*
1:30-2:00			
2:00-2:30			
2:30-3:00			
3:00-3:30	Neutrinos	McCoy	BSM and Neutrino Physics with the FASER Detector
3:30-4:00		Ramond	Neutrinos Have Come a Long Way
4:00-4:30		Gogoladze	Flavour Symmetry and the Gravitational Wave Background
4:30-5:00			
5:00-5:30			

Sunday 14 December

10:00-10:30	LIGO	Bartos	TBD
10:30-11:00		Casallas Lagos	Estimating the General Evolution of the Core-collapse Supernova High Frequency Feature in Interferometric Noise
11:00-11:30		Dutta Roy	Search for Gravitational-Wave Burst Candidates in LIGO–Virgo-KAGRA O4a Using the cWB-XP Pipeline
11:30-12:00		Klimenko	Observations of intermediate mass black holes with LIGO
12:00-12:30			
12:30-1:00			
1:00-1:30		*Lunch Break*	*(Lunch is **not** provided by the organizers.)*
1:30-2:00			
2:00-2:30			
2:30-3:00			
3:00-3:30	LIGO	Kumar	Probing remnant properties of binary black hole mergers using a novel ringdown analysis
3:30-4:00		Szczepanczyk	The next ten years of core-collapse supernova gravitational-wave astronomy
4:00-4:30		Vivekananthaswamy	TBD
4:30-5:00		Xue	From LIGO to LISA: Black Hole Mergers and EMRI Formation in AGN Disks
5:00-5:30			

Monday 15 December

10:00-10:30	Astrophysics		
10:30-11:00		Gleyzer	Machine Learning for High Energy Physics and Astrophysics
11:00-11:30		Fornal	New Gravitational Wave Signatures of Theories with Extended Gauge Symmetries
11:30-12:00		Daly	Supermassive Black Holes and the Low Frequency Gravitational Wave Background
12:00-12:30			
12:30-1:00			
1:00-1:30		*Lunch Break*	*(Lunch is **not** provided by the organizers.)*
1:30-2:00			
2:00-2:30			
2:30-3:00			
3:00-3:30	QM & QFT	Turbiner	Instanton Vacua in Quantum Mechanics
3:30-4:00		Shifman	Instantons, sphalerons and all that in scalar QFT with *N* =1,2: tunneling in topologically nontrivial ground states
4:00-4:30		Minic	The Weight of the Quantum
4:30-5:00			
5:00-5:30			

Tuesday 16 December

10:00-10:30	FineTuning	Manson	Fine-tuning and the Multiverse
10:30-11:00		Boyce	Fine-Tuning is Not Evidence for a Multiverse
11:00-11:30		Castano	Measures of Fine-tuning
11:30-12:00		Matchev, Poston, Ramond, et al.	Philosophy & Fine-tuning: A Panel Discussion
12:00-12:30			
12:30-1:00			
1:00-1:30		*Lunch Break*	*(Lunch is **not** provided by the organizers.)*
1:30-2:00			
2:00-2:30			
2:30-3:00			
3:00-3:30	AI and ML	Roman	Orchestral AI: Accelerating Scientific Discovery with Agentic Workflows
3:30-4:00		Menzo	Agents in HEP
4:00-4:30		Matchev	AI in HEP and Beyond
4:30-5:00		Zuniga-Galindo	Statistical Field Theory of Deep Neural Networks: An Approach to Deep Learning Ultrametric

Wednesday 17 December

10:00-10:30			
10:30-11:00	LHC	Thomas	Recent Highlights from the ALICE Experiment at LHC (virtual talk)
11:00-11:30		Colafranceschi	Large-Scale Production and Implementation of the CMS ME0 GEM Detector for HL-LHC
11:30-12:00		Pfaller	Recent Results of LHCb
12:00-12:30			
12:30-1:00			
1:00-1:30		*Lunch Break*	*(Lunch is **not** provided by the organizers.)*
1:30-2:00			
2:00-2:30			
2:30-3:00			
3:00-3:30	Q M, I, & L	Matcheva	Quantum Machine Learning for Analyzing Exoplanet Transmission Spectra
3:30-4:00		Stojkovic	Physics from Quantum Information
4:00-4:30		Buniy	Degrees of Entanglement of Dicke States of Qubits
4:30-5:00		McCarty	Development of the one loop computation for nonperturbative SU(2) Yang Mills
5:00-5:30			

Thursday 18 December

10:00-10:30	Dark Matter	Edmonds	TBD
10:30-11:00		Guendelman	Dynamical Tension Strings with Target Scale Symmetry producing DE, DM, and why 4D?
11:00-11:30		Sapkota	The Kähler-Fisher Framework for Fuzzy Dark Matter: Stability, Entropy, and Observational Constraints
11:30-12:00		Stiffler	Towards a Common Fundamental Source of Inflation, Dark Matter, and Dark Energy within Thomas-Whitehead Gravity
12:00-12:30			
12:30-1:00			
1:00-1:30		*Lunch Break*	*(Lunch is **not** provided by the organizers.)*
1:30-2:00			
2:00-2:30			
2:30-3:00			
3:00-3:30	STGM	Remembering Luca Mezincescu	Various speakers
3:30-4:00			
4:00-4:30			
4:30-5:00			
5:00-5:30			

Friday 19 December

10:00-10:30	Duality		
10:30-11:00		Curtright	Duality and Phase Space Quantization
11:00-11:30		Kephart	Magnetic Monopoles as Ultra High Energy Cosmic Rays
11:30-12:00		Frampton	TBD
12:00-12:30			
12:30-1:00			
1:00-1:30		*Lunch Break*	*(Lunch is **not** provided by the organizers.)*
1:30-2:00			
2:00-2:30			
2:30-3:00			
3:00-3:30	Finis		
3:30-4:00		Thank you for attending Miami 2025	Safe travels!
4:00-4:30			
4:30-5:00			
5:00-5:30			

Speaker	Link to Abstract	Talk title	Affiliation
Alshal		TBD	Santa Clara University
Bartos		TBD	University of Florida
Boyce	20	Fine-Tuning is Not Evidence for a Multiverse	University of Missouri
Buniy	25	Degrees of Entanglement of Dicke States of Qubits	Chapman University
Casallas Lagos	26	Estimating the General Evolution of the Core-collapse Supernova High Frequency Feature in Interferometric Noise	University of Warsaw
Castano		Measures of Fine-tuning	Nova Southeastern University
Chiodini	15	Overview of Recent Results from the ATLAS Experiment	INFN Lecce
Colafranceschi	16	Large-Scale Production and Implementation of the CMS ME0 GEM Detector for HL-LHC	James Madison University
Curtright	3	Duality and Phase Space Quantization	University of Miami
Daly	10	Supermassive Black Holes and the Low Frequency Gravitational Wave Background	Penn State University
Dutta Roy	38	Search for Gravitational-Wave Burst Candidates in LIGO–Virgo-KAGRA O4a Using the cWB-XP Pipeline	University of Florida
Edmonds		TBD	Penn State University
Evans		No talk	University of North Carolina
Fornal	36	New Gravitational Wave Signatures of Theories with Extended Gauge Symmetries	Barry University
Frampton		TBD	University of Salento
Gleyzer		Machine Learning for High Energy Physics and Astrophysics	University of Alabama
Gogoladze	33	Flavour Symmetry and the Gravitational Wave Background	University of Delaware
Guendelman	2	Dynamical Tension Strings with Target Scale Symmetry producing DE, DM and why 4D?	Ben Gurion University of the Negev
Hoq		Scalar Field Theories with Non-Polynomial Lagrangians	University of Miami
Kephart		Magnetic Monopoles as Ultra High Energy Cosmic Rays	Vanderbilt University
Klimenko		Observations of intermediate mass black holes with LIGO	University of Florida
Kumar		Probing remnant properties of binary black hole mergers using a novel ringdown analysis	University of Florida
Manson	6	Fine-tuning and the Multiverse	University of Mississippi
Matchev	21	AI in HEP and Beyond	University of Alabama
Matcheva	27	Quantum Machine Learning for Analyzing Exoplanet Transmission Spectra	University of Alabama
McCarty	23	Development of the one loop computation for nonperturbative SU(2) Yang Mills	Atlanta
McCoy	18	BSM and Neutrino Physics with the FASER Detector	U C Irvine
Menzo	22	Agents in HEP	University of Alabama
Minic	5	The Weight of the Quantum	Virginia Tech
Otero y Garzón	13	Recent Searches for New Phenomena with the ATLAS Detector	University of Buenos Aires
Pfaller	31	Recent Results of LHCb	University of Cincinnati

Speaker	Link to Abstract	Talk title	Affiliation
Poston	32	Philosophy & Fine-tuning	University of Alabama
Rahman		No talk	University of Miami
Ramond	19	Neutrinos Have Come a Long Way	University of Florida
Roman	28	Orchestral AI: Accelerating Scientific Discovery with Agentic Workflows	University of Alabama
Romano	9	Highlights of SM Measurements Including Top with the ATLAS Experiment at the LHC	INFN - Bologna
Sapkota	7	The Kähler-Fisher Framework for Fuzzy Dark Matter: Stability, Entropy, and Observational Constraints	Miami University (Ohio)
Shifman		Instantons, sphalerons and all that in scalar QFT with N =1,2: tunneling in topologically nontrivial ground states	University of Minnesota
Stelzer	11	Highlights on Higgs Physics with ATLAS	Simon Fraser University
Stiffler	24	Towards a Common Fundamental Source of Inflation, Dark Matter, and Dark Energy within Thomas-Whitehead Gravity	University of Iowa
Stojkovic	14	Physics from Quantum Information	SUNY at Buffalo
Szczepanczyk		The next ten years of core-collapse supernova gravitational-wave astronomy	University of Warsaw
Thomas	30	Recent Highlights from the ALICE Experiment at LHC	University of Texas - Austin
Turbiner	17	Instanton Vacua in Quantum Mechanics	UNAM & Stony Brook
Van Kortryk		No talk	Paris
Verma		No talk	University of Miami
Vivekananthaswamy		TBD	University of Wisconsin Milwaukee
Xue	35	From LIGO to LISA: Black Hole Mergers and EMRI Formation in AGN Disks	University of Florida
Zuniga-Galindo	1	Statistical Field Theory of Deep Neural Networks: An Approach to Deep Learning Ultrametric	University of Texas Rio Grande Valley