Scientific Meeting

Albert Einstein famously spent the last thirty years of his life seeking to unify the laws of nature. He was the first scientist who seriously advocated and pursued this objective. To Einstein, the goal was to unify the laws of electricity and magnetism, discovered in the 19th century, with the laws of gravity, as he himself had formulated them in General Relativity.

Nowadays, the quest for unification continues, but on a broader front. From a contemporary perspective, the weak interactions and the strong or nuclear force are coequal partners with electromagnetism and gravitation. The need to incorporate these additional
forces is a fundamental part of the story that was unclear in Einstein's day.

In our time, experimental clues about unification of fundamental forces come from accelerator experiments, from underground laboratories, and from astronomical observations.

On the theoretical side, string theory has emerged as a candidate for a unified theory of nature, but it remains little understood.

The closed meeting at the Bibliotheca Alexandrina will draw together participants from around the world to discuss the quest for a unified understanding of the laws of nature. With
a program consisting of talks by specialists from many countries, along with extensive time for discussions, the goal will be to discuss where we are now and where we should aim to go in the coming years in seeking to fulfill Einstein's dream.

Speakers

Ali CHAMSEDDINE
Cumrun VAFA
Edward WITTEN
Eliezer RABINOVICI
Gerardus 't HOOFT
Hirosi OOGURI
Jacob SONNENSCHEIN
John ILIOPOULOSl
Mohsen ALISHAHIHA
Mohamed S. ELNASCHIE
Michael GREEN
Murray GELL-MAN
Nima ARKANI HAMED
Ofer AHARONY
Rajesh GOPAKUMAR
Shiraz MINWALLA
Tadashi TAKAYANAGI

Scientific Meeting Program

Date	Time	Session	Tentative Speakers
Saturday 4 June 2005	9:00 – 10:00	Registration	
	10:00 – 11:30	Conference Opening Session	*Dr. Ahmed Nazif*, Egyptian Prime Minister *Dr. Ismail Serageldin*, Director of Bibliotheca Alexandrina *Prof. Mohamed Hassan*, Executive Director of Third World Academy of Science *Prof. Phillip Griffiths*, Director of Institute of Advanced Studies *Dr. Bruce Alberts*, president of the National Academy of Sciences *Prof. Mohamed S. Elnaschie*, Visiting Professor, Alexandria University , Egypt
	11:30 - 12:00	Coffee Break	BACC, VIP Lounge
	12:00 – 13:30	dS/dS Correspondence	*Prof . Mohsen Alishahiha*
		Not specified yet	*Prof . Ofer Aharony*
		c<1 String with Time- like Linear Dilaton Matter	*Prof . Tadashi Takayanagi*
	13:30 – 14:30	Lunch	BACC, Graeco-Roman Restaurant
	14:30 – 16:00	From Space-Time To World-Sheet	*Prof . Rajesh Gopakumar*
		Non-Critical Gauge/Gravity Duality	*Prof . Jacob Sonnenschein*
		The Landscape and the LHC	*Prof . Nima Arkani – Hamed*
	16:00 – 16:30	Coffee Break	BACC, VIP Lounge
	16:30 – 18:00	Discussion: Particle Physics in 2010	*Chairperson: Prof . Nima Arkani- Hamed*
Sunday 5 June 2005	09:00 – 10:45	Nonperturbative Contributions To Anomalous Dimensions In The BMN Limit	*Prof . Michael Green*
		Black Holes And Topological String	*Prof . Hiroshi Ooguri*
		Baby Universes In String Theory	*Prof. Cumrun Vafa*
	10:45 – 11:00	Coffee Break	BACC, VIP Lounge
	11:00 – 11:30	Not specified yet	*Prof. Murray Gell-Man*
	11:30 – 12:30	Discussion: The Future of String Theory	Chairperson: Prof. Cumrun Vafa
	12:30 – 14:00	Lunch	BACC, Graeco-Roman Restaurant
	14:30 – 16:00	Gauge Theories And Noncommutative Geometry	*Prof. John Iliopoulos*
		On Some Phases Of Gravity	*Prof. Eliezer Rabinovici*
		The Quantum Two-Slit Experiment Revisited	*Prof. Mohamed El Naschie*
		Holographic Mapping Of Standard Model Interactions On The Black Hole Horizon	*Prof. Gerardus' t Hooft*
	16:00 – 16:30	Coffee Break	BACC, VIP Lounge
	16:30 – 18:00	Discussion: Causality In Quantum Gravity	*Chairperson: Prof. Gerardus 't Hooft*
Monday 6 June 2005	09:00 – 11:00	Topic to be specified	Prof. Murray Gell-Man
		Complex Space-Time And Hermitian Geometry	*Prof. Ali Chamseddine*
		Plasma Balls In Large N Gauge Theories	*Prof. Shiraz Minwalla*
		Axions In String Theory	*Prof. Edward Witten*
	11:00 - 11:30	Coffee Break	BACC, VIP Lounge
	11:30 – 12:30	Concluding Discussion	*Chairperson: Prof. Edward Witten*
	12:30 – 13:00	Coffee Break	BACC, VIP Lounge
	13:00 – 14:30	Concluding Session of the Public Forum	
	14:30 – 15:30	Farewell Lunch	BACC, Graeco-Roman Restaurant
	16:00 – 17:00	Tour of the Library, including the museums and the Planetarium Science Center	