

# Press Release



FOR IMMEDIATE RELEASE



## **Cutting-edge art collides with scientific discovery at *Collider*** *Interactive art and programmes bring the world of particle physics to life at ArtScience Museum*

**Singapore** (13 November 2015) – Embark on an exciting journey of scientific discovery with *Collider*, an award-winning exhibition which will land at ArtScience Museum starting tomorrow. Through an immersive experience with specially designed soundscape and video art, visitors will ‘travel’ to the recreated site of CERN (European Organisation for Nuclear Research) buried underground in Geneva, and witness the spectacular collision among particle beams accelerating at the speed of light in the Large Hadron Collider (LHC).

Coming from the renowned Science Museum in London, the exhibition aims to engage different audiences – from the scientifically curious to those who have no prior knowledge of particle physics – by recreating the experience of being in the heart of the LHC, the world’s most fascinating science experiment. Visitors will encounter real objects, as well as real physicists and engineers at the CERN office through video projection and audio interviews played at different spaces. They will also have the opportunity to re-live the exciting moment when the Higgs boson was discovered at the LHC, through a visual theatrical experience in the scene of a press conference announcement of the discovery in July, 2012.

**Interactive art installation: Gift of Mass**

Inspired by the discovery of the Higgs boson - the most important discovery made by the LHC - ArtScience Museum presents the *Gift of Mass*, an interactive art installation that brings alive the scientific concepts underpinning the Higgs boson field. This audio-visual installation enables visitors to personally experiment with how mass is acquired, when a particle interacts with the Higgs field. Visitors have the mind-blowing experience of seeing themselves dancing with particles, as the acquisition of their own mass is shown on large screens.

This interactive multi-screen installation is a special project conceived in 2012, a few months after the discovery of the Higgs boson, by Italian Institute for Nuclear Physics (INFN) in collaboration with embryo.net collective and the artist Paolo Scoppola. *Gift of Mass* is a perfect representation of the interrelationship between art, science and technology, and presents an excellent opportunity for visitors to interact with the invisible matter around them.

"*Collider* is a landmark exhibition for ArtScience Museum. It transports visitors to the heart of the world's greatest science experiment, the Large Hadron Collider. The exhibition draws on new technology, theatre design and a stunning immersive set to explore some of the most fundamental scientific issues of our time. At ArtScience Museum, we believe art can be a powerful transmitter of scientific ideas, and this is beautifully expressed in the installation, *Gift of Mass*, which powerfully articulates how the Higgs mechanism works. In this exhibition, art truly collides with science, and visiting it will be an unforgettable experience for audiences of all ages," said Ms Honor Harger, Executive Director of ArtScience Museum.

**Conversations: Particles Matter - An Exploration of Collaborative Practices**

For the opening weekend on Saturday 14 November, visitors will also have the opportunity to join particle physicist and curator of *Collider* – Dr. Harry Cliff, as well as NUS Associate Professor Phil Chan Aik Hui for ArtScience Museum's half-day conference, *Particles Matter: An Exploration of Collaborative Practices*. Participants will enjoy an exclusive live link-up to tour one of the particle detectors, Atlas, at CERN, followed by a live poetry reading session by local playwright and poet, Eleanor Wong. The creative geniuses behind *Gift of Mass* will also be present to share more about the inspiration behind the interactive installation.

**ArtScience Late: Spooky Action (at a Distance) II**

In conjunction with *Collider*, the monthly *ArtScience Late* programme presents 'Spooky Action (at a Distance) II' – an experimental dance performance inspired by the theory of quantum entanglement.

Commissioned by NUS Centre for Quantum Technologies and presented by Strangeweather Movement Group, this original off-kilter performance features improvisation and choreography which brings to life complex theories within quantum physics. Only performed for one evening at ArtScience Museum on 19 November, the free performance is bound to inspire and delight.

### **The Collision Space**

Presented for a limited time until 24 January 2016, visitors can try their hands at a range of family-friendly programmes and activities, specially designed to illustrate and highlight Nobel Prize-awarded discoveries at CERN in 'The Collision Space'.

Curated by ArtScience Museum, 'The Collision Space' is a hands-on and interactive area shared with *The Nobel Prize: Ideas Changing the World* exhibition. This educational space, designed with children in mind, highlights scientific principles common to both exhibitions. The space features a timeline presenting Nobel Laureates who have been awarded for scientific inventions or discoveries from CERN experiments, a LEGO station where children can learn how particles are constituted, and a series of fun, hands-on activities that invite visitors of all ages to discover key inventions within physics.

The exhibition will run from 14 November 2015 to 14 February 2016.

For more information on *Collider*, please visit [www.marinabaysands.com/ArtScienceMuseum](http://www.marinabaysands.com/ArtScienceMuseum)

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#### **About Marina Bay Sands Pte Ltd**

Marina Bay Sands is the leading business, leisure and entertainment destination in Asia. It features large and flexible convention and exhibition facilities, 2,560 hotel rooms and suites, the rooftop Sands SkyPark, the best shopping mall in Asia, world-class celebrity chef restaurants and an outdoor event plaza. Its two theatres showcase a range of leading entertainment performances including world-renowned Broadway shows. Completing the line-up of attractions is ArtScience Museum at Marina Bay Sands, which plays host to permanent and marquee exhibitions. For more information, please visit [www.marinabaysands.com](http://www.marinabaysands.com)

#### **About ArtScience Museum**

ArtScience Museum at Marina Bay Sands is Southeast Asia's leading cultural institution that explores the inter-relationship between art, science, technology and culture. Featuring 21 galleries totaling 50,000 square feet, the iconic lotus-inspired building has staged major exhibitions by some of the 20th century's key artists, including Salvador Dalí, Andy Warhol and Vincent Van Gogh, as well as major exhibitions which explore aspects of scientific history.

#### **About the Science Museum**

As the home of human ingenuity, the Science Museum's world-class collection forms an enduring record of scientific, technological and medical achievements from across the globe. Welcoming over 3 million visitors a year, the Museum aims to make sense of the science that shapes our lives, inspiring visitors with iconic objects, award-winning exhibitions and incredible stories of scientific achievement.

**About CERN**

CERN, the European Organization for Nuclear Research, is the world's leading laboratory for particle physics. It has its headquarters in Geneva. At present, its member states are Austria, Belgium, Bulgaria, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Italy, the Netherlands, Norway, Poland, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom. Romania is a candidate for accession. Cyprus, Israel and Serbia are associate members in the pre-stage to membership. India, Japan, the Russian Federation, the United States of America, Turkey, the European Commission and UNESCO have observer status.

**About The Italian Institute for Nuclear Physics (INFN)**

The Italian Institute for Nuclear Physics (INFN) is the Italian research agency dedicated to the study of the fundamental constituents of matter and the laws that govern them. Since 2007 INFN Communication Department has been interested in using artistic languages and new technologies to create visual metaphors of scientific ideas and to communicate to the general public. INFN Communication Department has curated, in collaboration with visual artists and interaction designers, several multimedia and interactive installations at the crossing between art and science. These have been presented in Museums and Festivals in Italy and around the World and seen by hundreds of thousands of spectators.

**About embrio.net**

embrio.net is a collective of multimedia artists based in Rome. For many years active in the digital post-production area, it makes cross-media one of its most effective channels of expression. Since 2003 it produces visuals and audio-video installations housed in large social and cultural events such as Enzimi Contemporary Art Fest and the Venice Biennale, and commissioned by institutions such as the City of Rome, the Department for Equal Opportunities and the Ministry of Foreign Affairs in Italy.

**About Winton Capital Management**

Winton Capital Management is a leading global alternative investment company and a world leader in financial mathematics and empirical scientific research into financial markets. The company, founded in 1997, now employs some 280 people, including 120 scientists, at research campuses in London, Oxford, Zurich and Hong Kong. Winton Capital also has offices in New York and Sydney.

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**APPENDIX: PROGRAMME HIGHLIGHTS**

<b>Event</b>	<b>Date and timings</b>	<b>Venue</b>	<b>Description</b>	<b>Remarks</b>
<b>Curator's Guided Tour</b>	14 & 15 Nov: 11.30am & 5pm	Exhibition entrance, B2	Take a behind-the-scene look with Dr Harry Cliff, co-curator of the exhibition and particle physicist at University of Cambridge and meet with virtual scientists and engineers. Snoop around a researcher's workbench and examine objects up-close.	Complimentary to ticket-holders of <i>Collider</i> . Up to 25 visitors on a first-come, first-served basis. Stickers will be given out five minutes before tour begins.
<b>English Guided Tours</b>	Family Fridays 20 Nov, 3.30pm - 4.30pm  Saturdays 21 Nov, 5pm 28 Nov, 11.30am  Sundays 29 Nov, 5pm		Join us on a tour to discover how studying the subatomic world can point the way to a fuller understanding of our universe, to see history being made, to stand in the heart of a collision, and to witness a moment of discovery	
<b>Mandarin Guided Tours</b>	Saturdays 21 & 28 Nov, 4pm  Sundays 22 & 29 Nov, 4pm			
<b>Build Your Own Universe</b>	Family Fridays 20 Nov, 4.30pm - 5.30pm  Saturdays 14 & 28 Nov, 3.30pm - 4.30pm  Sunday 22 Nov, 3.30pm - 4.30pm	Workshop space	Learn about the history of our Universe, from the Big Bang to the end of time using a very simple tool: LEGO!	Suitable for children aged 6 and up. Up to 20 visitors on a first come first served basis. Registration begins 15 minutes before workshop begins at workshop space.
<b>Interactive Lab</b>	Saturdays 14 & 28 Nov 2pm - 3pm	The Collision Space	In this demonstration developed with WondersWork, participants will understand how particles are accelerated through the electrical field or simple science concepts behind the particle theory of how particles can move quickly in a linear direction using magnets and metallic balls.	Suitable for children aged 6 and up. Up to 40 visitors on a first come first served basis. No registration required.

Event	Date and timings		Description	Remarks
<b>Wacky Science</b>	Saturday 21 Nov 2pm - 3.30pm		Join scientists in this 90 minutes wacky science show and learn more about the collision of atoms, molecules and light. You will see subatomic particles in a cloud chamber and hear them through a Geiger counter and measure how collisions are affecting chemical reactions.	Suitable for children aged 6 and up. Up to 40 visitors on a first come first served basis. No registration required.
<b>Film Screening: Particle Fever</b>	From 30 November on selected dates, shown on continuous loop	Expressi on Gallery, L4	Particle Fever is a documentary from 2013 which invites us to witness one of the most significant moments of scientific discovery as it happened. This deeply engaging and at times profoundly moving documentary follows six CERN scientists during the preparation and launch of the Large Hadron Collider, the biggest experiment in history. We follow their ups and downs as well as their doubts and hopes for the future as they prepare to push the boundaries of our understanding of the world around us.	Free admission