

Press Release



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ArtScience Museum explores All Possible Paths

New exhibition celebrates the centenary of Nobel Laureate, Richard Feynman

SINGAPORE (18 September 2018) – The brilliant and multi-faceted life of Nobel Prize winning physicist, Richard Feynman, will be showcased at ArtScience Museum in a brand new exhibition to be unveiled on 20 October.

Curated and produced by ArtScience Museum, in collaboration with Nanyang Technological University, Singapore (NTU Singapore) and Nobel Museum in Sweden, ***All Possible Paths: Richard Feynman's Curious Life*** celebrates the extraordinary achievements of Feynman. It is developed to mark Feynman's centenary, which is being celebrated around the world this year, with conferences and festivities, including a major scientific conference, *Richard Feynman at 100* (22 – 24 October), at NTU.

All Possible Paths will show how Feynman contributed to our understanding of the mechanisms of the universe, through his pioneering work on quantum mechanics. Feynman was known for his work in quantum mechanics, the basis of modern physics, and for many technological advances that now support our everyday lives.

While Feynman is best known for his work in physics – receiving a Nobel Prize in 1965¹ – the exhibition also highlights how his curious nature and unconventional thinking drove him to explore many possibilities in life, including art and music.

¹ As one of three recipients of the Nobel Prize for Physics in 1965, Feynman improved the theory of quantum electrodynamics. The refined theory predicted and explained ways in which particles interact during collisions.

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"ArtScience Museum is delighted to present, *All Possible Paths*, a new exhibition, curated in-house by our team, working in dialogue with NTU and Nobel Museum. It marks the centenary of one of the most influential physicists of the 20th century, Richard Feynman. Far from being a traditional biographical exhibition, *All Possible Paths* uses both art and science, as well as striking contemporary design, to convey the importance and relevance of Feynman's work for today's audiences. In the centre of the show, installations, sculptures and immersive environments created by contemporary artists will take visitors deeper into Feynman's science through the medium of art. This is a unique show, celebrating a unique figure in science, and we are excited to launch it, in tandem with the *Richard Feynman at 100* conference, which will bring world-renowned scientists and Nobel Prize winners to Singapore," said Honor Harger, Executive Director of ArtScience Museum.

"It could not be more appropriate that ArtScience Museum in Singapore produces this wonderful exhibition on Richard Feynman's work. During his lifetime, Feynman was a world famous physicist, but he was also deeply involved in art. Feynman moved between fields in a very natural and inspiring way. He is a source of inspiration for generations of young scientists and the way he enlarged his intellectual territory by involving himself in activities such as painting and music should be a role model for all of us. The Nobel Museum in Stockholm is very proud to collaborate with ArtScience Museum – a unique institution in the world – on this project," Dr Olov Amelin, Museum Director of Nobel Museum.

All Possible Paths will also showcase a collection of Feynman's personal items, documents and letters, on loan from institutions and individuals from around the world.

More than 10 eminent scientists from all over the world will also converge at *Richard Feynman at 100*, a three-day conference held on NTU's campus from 22 October. They will be sharing their thoughts on Feynman's contribution to science and society, and on the importance of innovation and translational research excellence in academia.

Gallery Highlights

Presented in four thematic sections, *All Possible Paths* transports visitors into the world of one of the world's most important scientists of modern times.

The first section of the exhibition takes visitors on a journey into Feynman's eventful life. Some of Feynman's diverse interests included playing the bongo drums, cracking safes, a fascination with the small Russian republic of Tuva, and painting. Feynman discovered his passion for painting after a series of good-natured arguments on art and science with his artist friend, Jirayr Zorthian. Zorthian gave Feynman art lessons in return for physics lessons. Visitors to the show will get a rare glimpse of personal letters, family photos, Feynman's famous bongo drums, and a number of his paintings, which are being exhibited outside of the United States for the first time.

A much-loved professor at the California Institute of Technology (Caltech), Feynman was a spellbinding communicator of science. His flair for explaining complex scientific theories in an accessible and exciting way earned him the moniker, "The Great Explainer". Visitors to *All Possible Path* will have the opportunity to experience a series of Feynman's lectures in the

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second section of the exhibition. They will witness first-hand Feynman's showmanship, accompanied by his clever and vivid explanations, which captivated his audiences.

In the third section of the exhibition, ArtScience Museum will present scientific topics core to Feynman's work. Feynman, unlike other theoretical physicists, had a visual approach to the problems he was trying to solve. The section will see scientific concepts paired with artworks made by contemporary artists which will take visitors deeper into the science. The artists include, British digital artist, Markos R. Kay, Belgian artist, Frederik de Wilde, Thailand-based Japanese media artist, Eiji Sumi, Russian media artist, ::vtol::, American data visualisation pioneer, Edward Tufte, German artists from the nano+art competition and Malaysian artist, Jun Ong.

Drawing inspiration from Feynman's way of thinking, the artworks act as an introduction to quantum mechanics and provide artistic representations of six important scientific areas: Parton Theory, Weak Force, Quantum Electrodynamics, Feynman Diagrams, Nanotechnology and Quantum Computers.

The final section of the exhibition examines how Feynman's scientific contributions helped re-interpret physics and supported research that led to several more Nobel Prizes. Nobel Laureate Frank Wilczek's hand-drawn Feynman diagrams have been animated and will be shown for the first time in *All Possible Paths*. A video depicting a celebration for Feynman in Tuva will also be shown, allowing visitors to comprehend the far-reaching impact of Feynman's legacy in one of the most remote parts of the world.

All Possible Paths will run from 20 October 2018 till 3 March 2019.

Tickets are available at all Marina Bay Sands box offices and website from 1 October onwards. Terms and Conditions apply. Tickets prices as follows:

	STANDARD TICKET (SGD)	SINGAPORE RESIDENT (SGD)
Adult	15	12
Senior (65 years and above)/ Student/ Child (2-12 years)	10	8
Family package (2 kids & 2 adults)	40	32

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About ArtScience Museum

ArtScience Museum at Marina Bay Sands is the cultural institution in Singapore that explores the intersection between art, science, technology and culture. Since opening in February 2011, ArtScience Museum's striking lotus-inspired building has hosted large-scale exhibitions by some of the world's major artists, including Leonardo da Vinci, Salvador Dalí, Andy Warhol, Vincent Van Gogh, and M.C. Escher. In addition, the museum has produced presented significant exhibitions which explore aspects of science, including, in recent shows, big data, particle physics, natural history, marine biology and space exploration. The museum has staged international exhibitions in partnership with renowned museums and galleries around the world. It also curates exhibitions in-house, and runs a full programme of education, events, activities and learning opportunities for a wide range of audiences.

About the Nobel Museum

The Nobel Museum is a museum devoted to circulate information on the Nobel Prize, Nobel laureates from 1901 to present, and the life of the founder of the prize, Alfred Nobel (1833-1896). The Nobel Museum's aim is to spread knowledge as well as to create interest and discussion around the natural sciences and culture through creative learning and exhibition techniques, modern technology and elegant design. Please visit: www.nobelmuseum.se

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For hi-res images:

<https://drive.google.com/open?id=1jwmGlqT8N-J57LN4CjBsBwrqJ0cCaINd> (Credit as indicated in the captions)