

# World's great minds gather to celebrate Atiyah's birthday

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SOME of the world's finest scientific minds are converging in Edinburgh this week to celebrate the life and work of Britain's greatest living mathematician.

A series of events are planned to celebrate the 80th birthday of Sir Michael Atiyah, an honorary professor at the University of Edinburgh, and widely regarded as one of the most influential mathematicians of the 20th century.

Along with American Professor Isadore Singer, also attending the conference, in 1963 Sir Michael devised the Atiyah-Singer String Index Theorem – a landmark of modern mathematics for which the pair won the Abel Prize in 2004, one of the most important prizes in mathematics.

As part of the three-day conference, starting today, Sir Michael will chair a panel discussion on the Higgs boson that will feature Professor Higgs, also 80 next month.

Professor Peter Higgs's work has inspired the hunt for the elusive

Higgs boson at the CERN Large Hadron Collider in Switzerland.

Also attending is American physicist Professor Edward Witten – one of the leading workers in String theory, a significant branch of theoretical physics.

Sir Michael grew up in Sudan and Egypt, spending most of his academic life at Oxford, Cambridge, and Princeton. Now partially retired to Scotland, the celebrated mind confesses a love of nature, for taking his mind off intellectual pursuits. But he has admitted previously: "While you go for a long walk in the hills or you

work in your garden, the ideas can still carry on. My wife complains, because when I walk she knows I am thinking of mathematics."

As well as the Abel Prize, he has received many awards for his research, including the Fields Medal in 1966.

Lord Wilson of Tillyorn, President of the Royal Society of Edinburgh, said: "Sir Michael has been an outstanding President of the Royal Society of Edinburgh. It is both right and exciting that his 80th birthday will be celebrated by such an inspiring series of events."

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## How huge is this piece of String?

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Galileo's famous dictum tells us "the laws of nature are written in the language of mathematics". The Atiyah-Singer String Index Theorem acted as a Trojan horse allowing mathematicians a way into physics and vice versa, and giving

both a greater understanding of one another. Put in slightly, simpler terms, it was like archaeologists discovering the same characteristic patterns in tombs from two seemingly unrelated ancient cultures. Or quite simply, it was huge.

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