

## Magic or physics? – Special talk show at this year's TILC

*The public lecture hosted by TILC09 in April this year featured a close-up magician. Is antimatter annihilation the greatest work of magic?*

TILC09 in Tsukuba, Japan, took place on Japanese Invention Day observed annually on 18 April, and the week in itself was designated as Science and Technology Week. Naturally, in Tsukuba, the population of research institutions is unparalleled in the country, and it becomes most festive during that week once a year. There were various events held throughout the nation during the week of 13 April, one of which was the TILC09's public lecture, "The universe's greatest magic!?! – Antimatter annihilation" featuring a close-up magician, Tomohiro Maeda, Hitoshi Murayama of the Institute for the Physics and Mathematics of the Universe (IPMU) and Takeo Higuchi of KEK.

Generally, a public lecture in physics, especially particle physics which demands a higher level of understanding, targets senior and advanced students, but this time it was more ambitious. "We asked ourselves when we became most excited about science and things around us," says Junpei Fujimoto of KEK, who contrived this talk show. "Whether we were playing with a magnifying glass or digging up ant farms, in our early childhood, we were captivated by the mysteries around us." He knew, however, that to bring particle physics down to a specific age range, it was necessary to consider a radical option, something unheard of: a marriage of particle physics and magic.

Preceding the talk show, there was a brief introduction to matter and antimatter by IPMU's director general and active researcher at University of California at Berkley, Murayama, who discussed such ideas as energy conversion in Mr. Incredible's muscles to Pikachu's counterpart, anti-Pikachu, and how similar they were. Joined by Higuchi and Maeda, the talk show revolved around magic illustrating the law of cash conservation and inter-exchangeability of jam and peanut butter across space. Later, the show also introduced now a well-demonstrated accelerator link, "Angels and Demons", its making, CERN, and the proposed ILC.



Guest speakers are (from left): Hitoshi Murayama of IPMU, Takeo Higuchi of KEK, and a magician, Tomohiro Maeda.



Murayama demonstrates how matter and antimatter annihilate when they meet.

"I love anything novel. It is definitely an honour for me to be able to join such renowned scientists and create a show that would foster children's interest in science," says Maeda, who studied electronic engineering and later shifted his career to magic, where he has become world renowned, being awarded with a gold star membership to the Magic Circle in London. "In the four thousand years of magic history, magic has used nature's principle discovered by scientists and physicists. If someone in my audience were to be struck by the magical nature of the physical world and further uncover something still more marvelous in science, that would be my reward. And I would be happy if I could take a part in this cycle of knowledge and experiences over generations."

Maeda says that in scientific endeavours, there is no need for practical excuses in trying to answer the questions of mankind. "I hope that the day will come when nations cease to fight and start cooperating on a global scale. I think the ILC would be a good model for that." At the end of the show he encouraged youngsters to never give up on realising their dreams. What about dreams in the community? Well, there is the next generation to answer that for us. During the question-and-answer session at the end of the show, elementary school students came up to the stage and bombarded the physicists with questions. One pondered how to distinguish Pikachu from its anti-self, another student asked how the idea of antimatter at all came about. Asked what his dream was, one student answered it was to become a researcher at KEK and a

Nobel Prize winner. A dream machine like ILC could certainly be realised as long as we can see these looks of curiosity around us.

-- Misato Hayashida

See the entire recording of the public lecture [here](#). Sorry, the magic is omitted.