TEDx CERN

x = independently organized TED event

Ripples of curiosity

Saturday 5th November

4th edition

Partnership proposal

TED, TEDx and CERN: sparking conversations from curiosity

CERN, the European Organization for Nuclear Research, is one of the world's largest and most respected laboratories for scientific-research. This year CERN will host its 4th edition of TEDxCERN on **Saturday 5 November 2016 from 14:00 to 18:00**. This exciting live event will take place in the CERN main auditorium, with worldwide webcast events and a global audience.

TED is a nonprofit devoted to concept of *Ideas Worth Spreading*. What started in 1984 as a conference merging Technology, Entertainment, and Design has since broadened in scope. TED conferences now bring together the world's most fascinating thinkers and doers, who are challenged to give the talk of their lives in 18 minutes or less – no autocues, no prompts. TED talks are available to the public on the TED.com site and have generated more than a billion views.

TEDx events are planned and coordinated independently, under a free license granted by TED. The TEDx program helps communities and organizations spark conversations. More than 10,000 TEDx events across 168 countries have been produced, and more than 50,000 talks are available online. TEDx events have become a worldwide movement and CERN are proud to be part of it.

Since 2013, CERN has held three ground-breaking TEDx events, each with a live audience of 1,000 people, thousands more watchinged online and a view count on social media exceeding 10 million.

"In just three years, TEDxCERN has become one of our finest TEDx events, and we look to TEDxCERN to surface new ideas in science. A number of talks from TEDxCERN have been featured on TED.com and collectively have been viewed by large audiences around the globe."
Jay Herrati, Director of TEDx Events

TEDxCERN 2016 – Ripples of Curiosity

Great ideas don't sit—they splash. Breakthroughs shake the foundation of society and compel us to rethink our established practices. But revolutions rarely arrive as fully formed waves of innovation. Rather, they start as small ripples of curiosity that grow, evolve, collide, surprise and multiple as they spread around the world.

This year at TEDxCERN we explore curiosity. Ideas that started as ripples in science, technology and education are merging and converging, creating their own waves of change. What new dimensions of our cosmos will waves in the fabric of space time unveil? Can a computer learn and think like a human? How much can we learn about the earth under our feet by watching it from above?

This year speakers will explore the innovations percolating though their fields. They will share stories about their passions and fascinations and how their research has grown from small ripples of curiosity into waves transforming the way we see and interact with the world around us.

Take part in the TEDxCERN worldwide webcast event!

TEDxCERN is a global event and we would like to invite you to host an event streaming our webcast feed of all of our speakers – enabling you to engage and connect with your local community, and become part of the wider TEDxCERN movement.
All you need is a suitable location - your institute, university, school, library, hospital, museum… invite colleagues, friends and members and simply tune in to the TEDxCERN webcast!

Key Information:

Date:	Saturday 5 November 2016
Delivery format:	Two sessions from 14:00 until 18:00 with a break of 45 minutes between; sessions in English;
Needs:	A room with webcast equipment, internet connection, screen and chairs (webcast streaming: Full HD(1080p) at 5Mbit/s);
Actions:	Invite your local community, colleagues and friends;
Contact:	Valérie Seguin: Valerie.seguin@cern.ch, Tel: +41 22 76 63205 / Mobile: +41 75 411 7515.
Website:	http://tedxcern.web.cern.ch/

Frequently asked questions:

Why become a webcast partner to 2016 TEDxCERN live event?

- TEDxCERN is a great opportunity to organize an event in association with CERN.
- TEDxCERN is a simple way to engage your community in a conversation about the latest developments in science and technology.
- TEDxCERN webcast partners will be featured in an allocated section on the event website and we will provide dedicated high-quality streaming and relevant technical support.

What is involved in becoming a webcast partner?

5 simple steps:

1. Book a room where you can hold the webcast event (with webcast equipment, internet connection, screen and chairs);
2. Invite people in your community with whom your institution could engage in a constructive dialogue;
3. Promote the event within your community using TEDxCERN posters and press release templates provided by CERN;
4. Organize a reception after the event (the conversations after the talks are

among the most memorable parts of a TEDx event!);

5. Send us photos/videos of your event.

What will the TEDxCERN team help with?

TEDxCERN will provide everything you need to make sure your webcast partner event is a success:

- A running list of webcast partners on the TEDxCERN and CERN homepages;
- A poster template will be made available for you to download and print;
- A CERN press release will be made available for customization and distribution in your own community;
- An HD webcast feed will be made available and direct simulcast event audience participation will be made possible through TEDxCERN social medial.

For further information on webcast partnerships, please do not hesitate to contact the Webcast Team: Valérie Seguin: Valerie.seguin@cern.ch, Tel: +41 22 76 63205 / +41 75 411 7515 or Teodora Nikolova: teodora.nikolova@cern.ch .

Speakers:

Gary F. Marcus is a professor of psychology and neural science at NYU and CEO and co-founder of the recently-formed Geometric Intelligence, Inc. His research on language, computation, artificial intelligence, and cognitive development has been published widely in leading journals such as Science and Nature. He is also the author of four books including The Algebraic Mind, Kluge: The Haphazard Evolution of the Human Mind, and The New York Times Bestseller Guitar Zero. He contributes frequently to the The New Yorker and The New York Times. He is an avid critic of connectionism and deep-learning fever in AI.

Jun Wang is one of China's most famous scientists. Wang has led BGI, the genome-sequencing powerhouse since 2007, when it stopped using the name Beijing Genomics Institute and moved its headquarters to Shenzhen. He now plans to devote himself to a new "lifetime project" of creating an AI health-monitoring system that would identify relationships between individual human genomic data, physiological traits (phenotypes) and lifestyle choices in order to provide advice on healthier living and to predict, and prevent, disease.

Dennis Lo directs the Li Ka Shing Institute of Health Sciences at the Chinese University of Hong Kong. After 22 years of persistent research, Dennis Lo succeeded in decoding a fetal genetic blueprint found within maternal blood. The advance is already saving lives by allowing pregnant women to be noninvasively screened for genetic abnormalities in fetuses they carry. Lo is currently working on developing a plasma DNA-based test that can be used to detect different types of cancer.

Sheila Rowan is the director of the Institute for Gravitational Research at University of Glasgow and a contributor to the LIGO observatory, the world's largest gravitational wave observatory and a cutting edge physics experiment. For the first time, scientists have observed ripples in the fabric of spacetime called gravitational waves, arriving at the earth from a cataclysmic event in the distant universe. This confirms a major prediction of Albert Einstein's 1915 general theory of relativity and opens an unprecedented new window onto the cosmos.

Laura Baudis is a professor at the Physik Institut at the university of Zurich and a specialist in dark matter. One of the major challenges of modern physics is to decipher the nature of dark matter. Astrophysical observations provide ample evidence for the existence of an invisible and dominant mass component in the observable universe, from the scales of galaxies up to the largest.

Michael Grätzel is the world's leading expert on dye-sensitized solar cells, after all, he invented it. His lab's work on that topic crossed CleanTechnica's radar back in 2011, when it seemed that the work would lead to "solar skyscrapers" and other building-integrated solar applications, as well as consumer products. You can find dye-sensitized solar cells in many commercial applications today, including a showcase installation in Switzerland, where transparent solar panels form a facade for the new SwissTech Convention Center on the EPFL campus.

Samira Hayat is a PhD student at University of Klagenfurt, where she has been part of the team that develops drone systems for the good. These systems should save lives in swarms. The autonomous drone system developed by Lakeside Labs and U Klagenfurt is one of «15 novel ideas for 2015» featured by the WIRED magazine.

Shannon Dosemagen is Founder of Public lab, a community where you can learn how to investigate environmental concerns. Using inexpensive DIY techniques, they seek to change how people see the world in environmental, social, and political terms.

Brij Kothari is the founder of PlanetRead. He believes that "same-language subtitling"—providing subtitles for the lyrics of catchy Bollywood songs—offers valuable reading practice. Brij Kothari has leveraged the ubiquitous presence of television in rural India and the billion-strong Indian population's voracious appetite for film songs to infuse reading practice into entertainment. By creating a technological tool devoid of any major infrastructural inputs and hence easily replicable, Brij has demonstrated a model that can spread globally.