Is clay solid or liquid? Get your answer and a cup of coffee

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Kaapi with Kuriosity, monthly public lecture series by the International Centre for Theoretical Sciences, has been going on in the City since 2016

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A session in progress at Kappi with Kuriosity.

Are you curious to know why toothpaste doesn't flow out of a tube the minute it is opened? Or why the back of a bottle of tomato sauce needs to be hit hard before the sauce can be used to coat that delicious, flaky samosa or puff?

If yes, you should walk into the Jawaharlal Nehru Planetarium this Saturday, June 17, where Dr. Ranjini Bandyopadhyay, Professor, Raman Research Institute (RRI), will tell you exactly why this happens.

In her talk titled *Is Clay a solid or a liquid?* Professor Bandyopadhyay, an expert on "soft materials", a dizzying range of seemingly diverse substances that include milk, blood, foam, lotions, and even sand, will explain and demonstrate some of the most puzzling

behaviours of these materials, an exploration that promises to be both fun and entertaining.

"I am going to be describing one of the longest-running experiments in history, a pitchdrop experiment which is trying to settle the question of whether pitch is a liquid or solid," says Prof. Bandyopadhyay.

Prof. Bandyopadhyay's session will be the 78th such talk under the Kaapi with Kuriosity public lecture series, a monthly public lecture series organised by the International Centre for Theoretical Sciences (ICTS-TIFR), in collaboration with the Jawaharlal Nehru Planetarium and other educational institutions in Bengaluru.



The audience at one of the Kaapi with Kuriosity sessions.

Scientific temper

According to Anupam Ghosh, Project Coordinator (Outreach), ICTS-TIFR, Bengaluru, the talks were kicked off in late 2016 as a way to "encourage scientific temperament among the general public through scientific talks," he says, adding that they have been conducting one talk per month since then, continuing with the initiative even during COVID-19. "I think we are one of the few government research organisations which have been having such a public engagement on a monthly basis."

What makes the talks so interesting, he adds, is the format in which it is conducted. "The talk by the speaker is followed by a long question and answer round," says Ghosh, pointing out that this session is the most important part of the talk.

"The key area is to encourage people to ask questions and get logical answers. Even if a reputed scientist or politician says something, you should be able to question things," he says, adding that this session will be followed by coffee, during which people are welcome to have a one-on-one discussion with the speaker in an informal way.

"The format encourages interactions and questions," he says, pointing out that the event has been live-streamed on Youtube from the very start, with an option to ask questions live even in this virtual format. "We really stress that no question is too small or stupid. No matter what it is, the speaker will answer it in a respectful manner."

Eclectic range

A peek into the ICTS website, where details of both previous and upcoming talks are listed, shows an eclectic range of science-based topics, ranging from primordial black holes to lunar exploration, natural selection, the chaos theory, robots, quantum matter, mathematics and so much more.

So, what goes into curating these talks? "We want to bring in scientists from various domains," says Ghosh, adding that they have also tried to have more women on the forum. Most of the talks have been about presenting science in an easily-digestible formal to "put forth what Indian scientists are doing," though they have veered into non-science arenas on a couple of occasions.

And yes, many speakers have also been sourced from a component unique to ICTS called Programs, which has many national and international participants. "We have even had Nobel Laureates like David Gross at this," he says. "We make sure every speaker who gives us Kaapi talk is fantastic."

The next edition of Kaapi with Kuriosity will be held at the Jawaharlal Nehru Planetarium, Bengaluru between 4 p.m. and 5.30 p.m. on June 17. Log into www.icts.res.in/outreach/kaapi-with-kuriosity for more details.