

## KAAPI WITH KURIOSITY

## Magnetic Reconnection: The Engine Behind Solar Flares and Aurorae

A few months ago, the entire world was enraptured by the celestial light show that appeared in the night sky. What is the origin of these aurorae? This phenomenon is intricately linked to a plasma physics process known as magnetic reconnection. Magnetic reconnection involves the explosive rearrangement of magnetic fields, releasing tremendous energy. This energy fuels solar flares, which, in turn, send charged particles towards the Earth. These high energy particles slam into the Earth's atmosphere, heating up the air molecules and causing them to glow as mesmerising aurorae. This talk delves into the science behind magnetic reconnection, exploring its role in solar flares and aurorae formation.



## Pallavi Bhat

Pallavi Bhat is an astrophysicist who works on aspects related to fluid dynamics and plasma physics. Currently, she is on the ICTS-TIFR faculty in Bengaluru, as Reader F. Previously, she carried out postdoctoral research at Princeton University, MIT and University of Leeds. She obtained her PhD from the Inter-University Centre for Astronomy and Astrophysics, Pune.

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