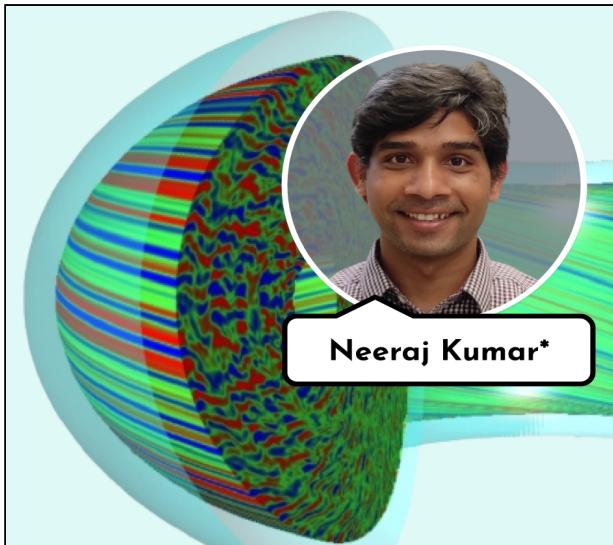


# FusionEPTalks



Neeraj Kumar\*



## Turbulent transport analyses

in the inner core region of tokamak plasmas

Thursday, December 9<sup>th</sup>  
19:00 Prague

Zoom in **LIVE** at  
**fusion.yt/bd**

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**Title:** Analysis of turbulent transport in the central part of high-confinement tokamak plasmas

**Speaker:** Neeraj Kumar

**When:** 2021-12-09 19:00:00

**Abstract:** One of the major goals of the ITER project is to demonstrate high fusion power gain in a tokamak. In ITER, metallic plasma-facing components are chosen for their low tritium retention and ability to sustain high heat loads. However, tokamaks operation with metallic plasma-facing components raises issues regarding the control of high-Z impurities since the accumulation of heavy impurities such as tungsten ( $Z=74$ ) in the plasma core leads to significant radiation losses and deteriorates the energy confinement. Transport of tungsten ( $W$ ) in the central part of ITER ( $r/a = 0.3$ ) and the central part remains relatively unexplored so far. The aim of this work is to advance our understandings of the dominant transport mechanism in the central region ( $r/a = 0.3$ , where much of the work has already been done previously).

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