Indian Institute of Space Science and Technology
Department of Mathematics
Maths Club — Weekly Challenge #4

Date: November 3, 2025

Challenge Question   Difficulty: ★★★★★

Solve:

$$\lim_{n \to \infty} n^2 \int_0^{\frac{1}{n}} \frac{e^x - 1}{1 + n^4 x^4} dx$$

Instructions:

- Submit your detailed solution (typed or handwritten) by **14 Nov, 2025**.

- Use the link below for submission:

    Submit Here: Maths Club – Weekly Challenge Submission

- Selected solutions will be featured in the **Maths Club GitHub repository**.

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For queries: `mathsclub@iist.ac.in`