### Global Exercise - Gue09

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16<sup>th</sup> June, 2022

#### Content covered:

- $\checkmark$  Programming exercise 02: Explanation + Hints.
- ✓ Analysis:
  - \* Expansion of f(x, y) in eigenfunctions of Laplace operator (2D).
  - \* Distribution & its derivative.
- $\checkmark$  Numerics: Ghost points in FDM + Neumann BCs.

### 1 Programming exercise 02: Explanation + Hints

# 2 Analysis: 2D Eigenfuctions of Laplace operator

 $\mathbf{Example\ 1.}\ \mathit{Examine\ the\ following}$ 

# 3 Analysis: Distribution and its derivative

 $\textbf{Example 2.} \ \textit{Examine the following} \\$ 

## 4 Numerics: Ghost points in FDM

Example 3. Examine the following