Two-Dimensional Diffusion Equation

Solve the two-dimensional diffusion equation on a square with with u equal zero on the boundaries.

Script ❓

💾 Save   ↻ Reset   📖 MATLAB Documentation (https://www.mathworks.com/help/)

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44   %%%%% Define the square and grid parameters %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
45   L=1;   %square is 2L x 2L
46   N=100; %# of intervals in x and y directions
47   n=N+1; %# of gridpoints in x,y directions including boundaries
48   h=2*L/N;  %grid size in x,y directions
49   x=-L + (0:N)*h; %x values on the grid
50   y=-L + (0:N)*h; %y values on the grid
51   [X,Y]=meshgrid(x,y);
52
```

▶ Run Script ❓

Tests: All Tests Passed   Submit ❓

✅ **Solution of u=u(x,y,t)**

Output

```
Code ran without output.
```

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