ILU Decomposition

Problem Domain

2D conduction problem. Square domain of width and height of 1 unit. The boundary conditions are:

At x = 0: T = 0
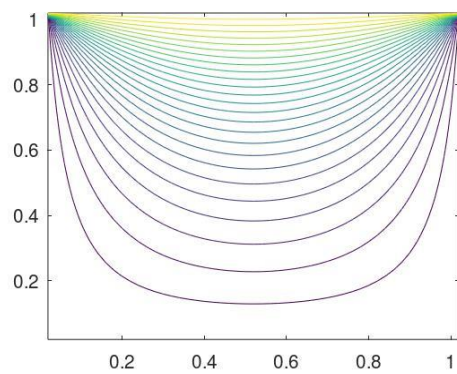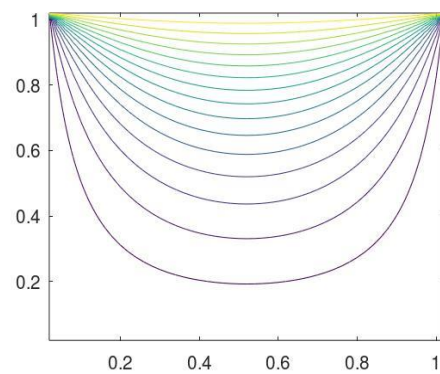
At x = 1: T = 0

At y = 0: T = 0

At y = 1: T = 1

Results

Following figures show the results obtained from code, compared with analytical results
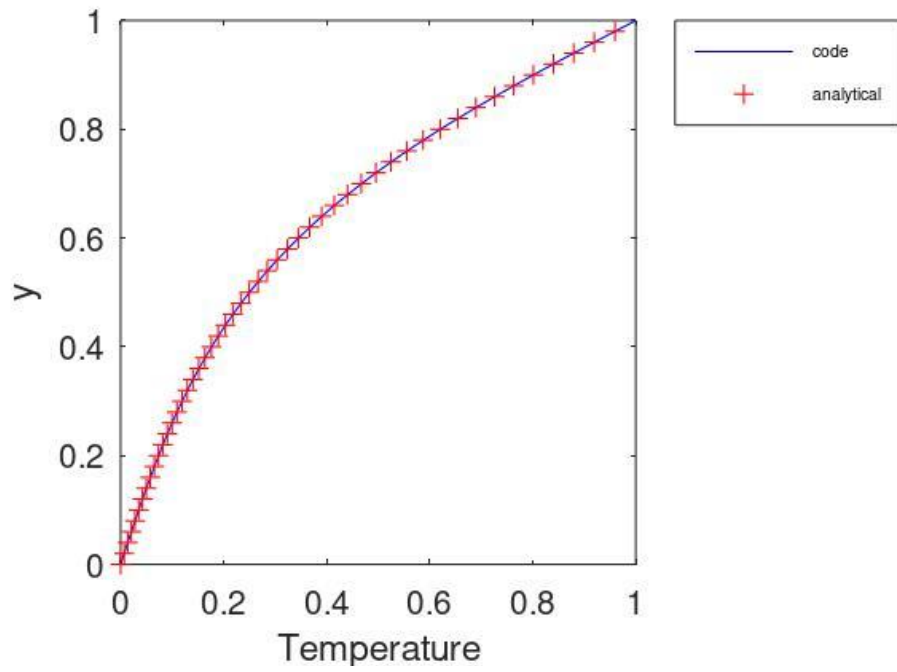

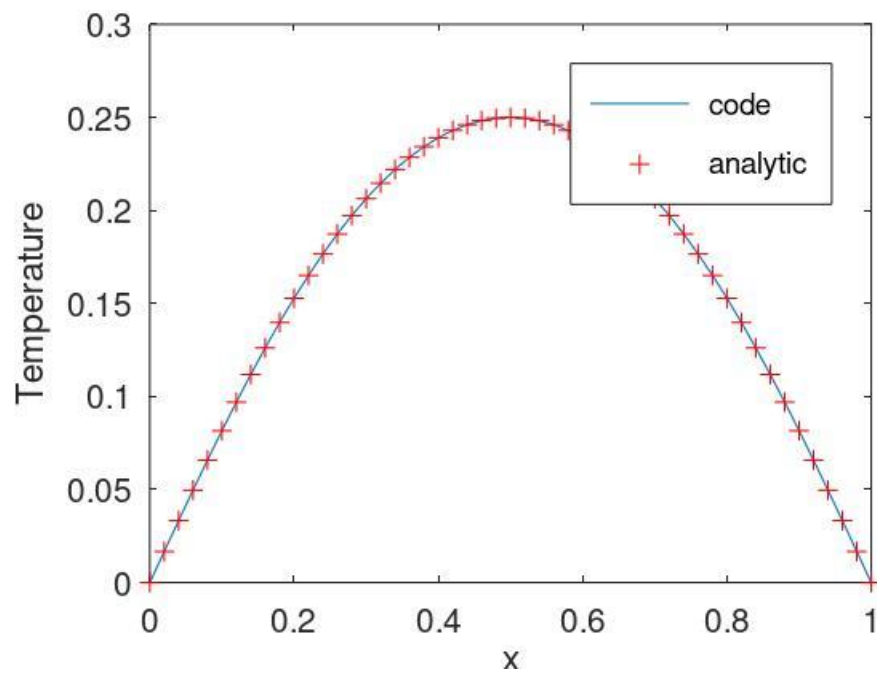(a)Result from code   (b)Analytical

Contours of Temperature

Temperature variation along mid-vertical plane (x = 0.5)

Temperature variation along mid-horizontal plane (y = 0.5)