Error table by H/P test of Poisson Equation on [0,1]

September 24, 2003

Predefined conditions

- The interval defined is $[0, 1]$.

- Element sizes are equivalent.

- Dirichlet condition at $x = 0$ is zero.

- Neumann condition at $x = 1$ is zero.

- The number of samples used to calculate the error is 300.

Order of Approximation	Number of Elements	Order of eachElement	Maximum Norm of Error
5	5	[1, 1, 12, 1, 1]	0.0255
5	5	[2, 2, 2, 2, 2]	0.0019
5	5	[3, 3, 3, 3, 3]	2.4000e-004
5	5	[4, 4, 4, 4, 4]	5.6437e-006
5	5	[5, 5, 5, 5, 5]	5.7732e-015
15	5	[5, 5, 5, 5, 5]	4.3229e-006
15	5	[7, 7, 7, 7, 7]	2.2388e-007
15	5	[8, 8, 8, 8, 8]	8.6603e-008
15	5	[9, 9, 9, 9, 9]	6.7875e-008
15	5	[11, 11, 11, 11, 11]	6.6704e-008
15	5	[13, 13, 13, 13, 13]	6.6711e-008
15	5	[15, 15, 15, 15, 15]	6.6767e-008
15	5	[8, 21, 21, 21, 8]	Wait too long