

Example 1. 0.82 seconds for 3000000 terms (non-parallel using explicit calls). Sum =
15.49133867820057406351711346262140144713987478129118

Example 2. 0.12 seconds for 3000000 terms (parallel using explicit calls). Sum =
15.49133867820057406351711346262140144713987478129118

Example 3. 1.08 seconds for 3000000 terms (non-parallel using fmzm). Sum =
15.49133867820057406351711346262140144713987478129118

Example 4. 0.19 seconds for 3000000 terms (parallel using fmzm) Sum =
15.49133867820057406351711346262140144713987478129118

Example 5. 0.51 seconds for the heat equation using $n = 20$ and a 41×41 grid.

Critical time $t_1 = 0.4234454890749$

Example 6. Get several approximations to t_1 for different grid sizes.

$n = 2$	$t_1 = 0.3704770533853$
$n = 4$	$t_1 = 0.4101128561049$
$n = 6$	$t_1 = 0.417725310247$
$n = 8$	$t_1 = 0.4204890393155$
$n = 10$	$t_1 = 0.4217531426529$
$n = 12$	$t_1 = 0.4224416576260$
$n = 14$	$t_1 = 0.4228574458342$
$n = 16$	$t_1 = 0.4231275662427$
$n = 18$	$t_1 = 0.4233128777883$
$n = 20$	$t_1 = 0.4234454890749$
$n = 22$	$t_1 = 0.4235436381929$
$n = 24$	$t_1 = 0.4236183067653$
$n = 26$	$t_1 = 0.4236764273189$
$n = 28$	$t_1 = 0.4237225509610$
$n = 30$	$t_1 = 0.4237597655261$
$n = 32$	$t_1 = 0.4237902258226$
$n = 34$	$t_1 = 0.4238154725518$
$n = 36$	$t_1 = 0.4238366309395$
$n = 38$	$t_1 = 0.4238545382679$
$n = 40$	$t_1 = 0.4238698279699$

Fit increasingly accurate error formulas for better accuracy.

Degree of error polynomial = 3	t1 = .424007666051960724576969889474
Degree of error polynomial = 4	t1 = .424011378076938401630403468224
Degree of error polynomial = 5	t1 = .424011387707831301853239103036
Degree of error polynomial = 6	t1 = .424011387020075555268971096080
Degree of error polynomial = 7	t1 = .424011387035647355827128541553
Degree of error polynomial = 8	t1 = .424011387033620195098553896979
Degree of error polynomial = 9	t1 = .424011387033688518579825998375
Degree of error polynomial = 10	t1 = .424011387033688366510439298055
Degree of error polynomial = 11	t1 = .424011387033688361151733870336
Degree of error polynomial = 12	t1 = .424011387033688364015742256228
Degree of error polynomial = 13	t1 = .424011387033688363791866518152
Degree of error polynomial = 14	t1 = .424011387033688363797581810695
Degree of error polynomial = 15	t1 = .424011387033688363797435312879
Degree of error polynomial = 16	t1 = .424011387033688363797432818459
Degree of error polynomial = 17	t1 = .424011387033688363797432819733
Degree of error polynomial = 18	t1 = .424011387033688363797432829483
Degree of error polynomial = 19	t1 = .424011387033688363797432821240
Degree of error polynomial = 20	t1 = .424011387033688363797432847214

As a check, subtracting this last result from the correct answer gives 8.2137964553E-25