Tophat (Pipe) Problem Results Summary

Arrival Time is defined as the first time that the temperature exceeds 0.06 keV at a location. Steady-State value is defined to be the value at the end of the run, preferably at 1×10^6 sh, but at least past 1×10^3 sh.

Full results (graphs and data) are available on the web at `http://www.c3.lanl.gov/~hall/tophat.html`.

This information applies for all of these runs:

Code: Spartan/Augustus Runs by: Michael L. Hall
Mesh: Fine Orthogonal Wall Opacity $\times$ 10
Date: October 97
Run specifics: $t/1000 < \Delta t < t/10$, GMRES/Low-Order/SSOR, $\epsilon = 10^{-3}, 10^{-7}, 10^{-6}$

Method: P_1 (SP_1), Implicit, Hall/Morel Edits: by Region
CPU time: 7:47:42, 2983 steps Arch: Sun Ultra 1, 167MHz

	Radiation Temperature		Material Temperature	
Location	Arrival Time	Steady-State	Arrival Time	Steady-State
1	2.332475E-05	0.461465198	1.622823E-03	0.461465198
2	1.226563E-02	0.424520708	2.916467E-02	0.424520708
3	2.066279E-02	0.417351209	7.735995E-02	0.417351209
4	3.023383E-02	0.410043050	1.242866E-01	0.410043050
5	6.505476E-02	0.355719779	2.995251E-01	0.355719779

Method: SP_3, Implicit, Hall/Morel Edits: by Region
CPU time: 11:55:10, 2828 steps Arch: Sun Ultra 1, 167MHz

	Radiation Temperature		Material Temperature	
Location	Arrival Time	Steady-State	Arrival Time	Steady-State
1	2.342316E-05	0.462428911	1.774838E-03	0.462428911
2	8.084932E-03	0.423843833	3.746633E-02	0.423843833
3	1.509528E-02	0.417023351	9.245188E-02	0.417023351
4	2.472319E-02	0.410115366	1.495215E-01	0.410115366
5	6.712734E-02	0.353135874	3.475833E-01	0.353135874

Method: SP_5, Implicit, Hall/Morel Edits: by Region
CPU time: ? Arch: Sun Ultra 1, 167MHz

	Radiation Temperature		Material Temperature	
Location	Arrival Time	Steady-State	Arrival Time	Steady-State
1	2.342385E-05	0.462166199	1.793934E-03	0.462166200
2	8.085945E-03	0.423153519	3.553995E-02	0.423153521
3	1.498117E-02	0.416367913	9.202512E-02	0.416367915
4	2.482366E-02	0.409521953	1.459079E-01	0.409521956
5	6.668527E-02	0.352375417	3.473583E-01	0.352375422

Method: SP_7, Implicit, Hall/Morel Edits: by Region
CPU time: 16:12:04, 22158 steps Arch: Sun Ultra 1, 167MHz

	Radiation Temperature		Material Temperature	
Location	Arrival Time	Steady-State	Arrival Time	Steady-State
1	2.342393E-05	0.462053766	1.793936E-03	0.462053766
2	8.072104E-03	0.423131562	3.547284E-02	0.423131560
3	1.490423E-02	0.416364053	9.203222E-02	0.416364051
4	2.458823E-02	0.409537739	1.459800E-01	0.409537737
5	6.666178E-02	0.352594510	3.475862E-01	0.352594507
