

# Sheet1

NP # cores	No preordering		
	time (s)	Speed-up	% Efficiency
1	29350	1	100
4	7960	3.69	92.18
8	4790	6.13	76.59
16	3250	9.03	56.44
32	2490	11.79	36.83

NP # cores	Nested dissection preordering		
	time (s)	Speed-up	% Efficiency
1	50750	1	100
4	19680	2.58	64.47
8	16300	3.11	38.92
16	11420	4.44	27.77
32	9217	5.51	17.21

## Problem:

- strongly coupled stationary laminar flow with solute mass transfer
- complex 3-d geometry with inlet, outlet, walls and periodic boundaries
- 3,057,962 DOFs, PARDISO used 80-90 Gb RAM
- non-linear system (4 linear iterations needed for each solution)
- the total solution time is reported (4 linear systems in total)
- nested dissection multithreading preordering used in the tests

