Código da pasta: mach2d-5p8-tdma-bl_Diego_6_Ago_2012

Executor das simulações: Marchi

Datas: 8 a 17 Ago 2012

Características:

Versão do código preparada pelo Diego F. Moro para Windows

Versão do código compilada pelo Diego F. Moro em outro computador

Versão Release

Solver TDMA

Computador com:

Processador Intel Core i7 CPU 950, 3.07 GHz

4 GB RAM

Windows XP x64 2003 SP2

Compilador Intel Fortran 11.1

Dados Gerais:

Malha 45-15 do Back et al. (1965), p. 1610

Equações de Euler (modvis = 0)

Parede adiabática (ccTw = 0)

Malha uniforme em Y (kg = 1)

Coordenadas cilíndricas (coord = 1)

Rg = 2.869d+2 J/kg.K

gamma = 1.4d0

po = 1725068.0d0

T0 = 833.33d0

pr = 101325.0d0

go = 9.80665d0

Tolerance = 1d-6

Em todas as tabelas abaixo, as informações em vermelho referem-se aos dados e resultados obtidos com o menor tempo de CPU para cada malha.

Tabela 1. Dados para beta2 = 0 (UDS-1)

Caso	NX-2	NY-2	beta1	beta2	itb1	itb2	it1	it2	dt1	dt2	itmax	imax	nitm_u	nitm_p
M0001	56	20	0	0	1000	1000	5	5	1d-5	1d-5	5000	5	2	2
M0002	56	20	0	0	1000	1000	5	5	2d-5	2d-5	5000	5	2	2
M0003	56	20	0	0	1000	1000	5	5	4d-5	4d-5	5000	5	2	2
M0004	56	20	0	0	1000	1000	5	5	2d-5	2d-5	5000	4	2	2
M0005	56	20	0	0	1000	1000	5	5	2d-5	2d-5	5000	3	2	2
M0006	56	20	0	0	1000	1000	5	5	2d-5	2d-5	5000	2	2	2
M0007	56	20	0	0	1000	1000	5	5	2d-5	2d-5	5000	1	2	2
M0008	**56**	**20**	**0**	**0**	**1000**	**1000**	**5**	**5**	**2d-5**	**2d-5**	**5000**	**6**	**2**	**2**
M0009	56	20	0	0	1000	1000	5	5	2d-5	2d-5	5000	7	2	2
M0010	56	20	0	0	1000	1000	5	5	2d-5	2d-5	5000	10	2	2
M0011	56	20	0	0	1000	1000	5	5	2d-5	2d-5	5000	6	1	2
M0012	56	20	0	0	1000	1000	5	5	2d-5	2d-5	5000	6	3	2
M0013	56	20	0	0	1000	1000	5	5	2d-5	2d-5	5000	6	4	2
M0014	56	20	0	0	1000	1000	5	5	2d-5	2d-5	5000	6	2	1
M0015	56	20	0	0	1000	1000	5	5	2d-5	2d-5	5000	6	2	3
M0016	56	20	0	0	1000	1000	5	5	2d-5	2d-5	5000	6	2	4
M0017	56	20	0	0	1000	1000	5	5	2d-5	2d-5	5000	6	2	5
M0018	112	40	0	0	1000	1000	5	5	2d-5	2d-5	5000	6	2	2
M0019	**112**	**40**	**0**	**0**	**1000**	**1000**	**5**	**5**	**2d-5**	**2d-5**	**5000**	**6**	**2**	**5**
M0020	112	40	0	0	1000	1000	5	5	2d-5	2d-5	5000	6	2	3
M0021	112	40	0	0	1000	1000	5	5	2d-5	2d-5	5000	6	2	10
M0022	112	40	0	0	1000	1000	5	5	1d-5	1d-5	5000	6	2	5
M0023	224	80	0	0	1000	1000	5	5	2d-5	2d-5	5000	6	2	5
M0024	224	80	0	0	1000	1000	5	5	2d-5	2d-5	5000	6	2	10
M0025	224	80	0	0	1000	1000	5	5	1d-5	1d-5	5000	6	2	10
M0026	224	80	0	0	1000	1000	5	5	1d-5	1d-5	5000	6	2	5
M0027	224	80	0	0	1000	1000	5	5	1d-5	1d-5	5000	3	2	5
M0028	224	80	0	0	1000	1000	5	5	1d-5	1d-5	5000	7	2	5
M0029	224	80	0	0	1000	1000	5	5	1d-5	1d-5	5000	10	2	5
M0030	**224**	**80**	**0**	**0**	**1000**	**1000**	**5**	**5**	**8d-6**	**8d-6**	**5000**	**7**	**2**	**5**
M0031	224	80	0	0	1000	1000	5	5	5d-6	5d-6	5000	7	2	5
M0032	224	80	0	0	1000	1000	5	5	9d-6	9d-6	5000	7	2	5
M0033	224	80	0	0	1000	1000	5	5	7d-6	7d-6	5000	7	2	5
M0034	448	160	0	0	1000	1000	5	5	5d-6	5d-6	5000	7	2	5
M0035	448	160	0	0	1000	1000	5	5	5d-6	5d-6	5000	14	4	10
M0036	448	160	0	0	1000	1000	5	5	7d-6	7d-6	5000	7	2	5
M0037	448	160	0	0	1000	1000	5	5	6d-6	6d-6	5000	7	2	5
M0038	448	160	0	0	1000	1000	5	5	6d-6	6d-6	5000	7	2	10
M0039	448	160	0	0	1000	1000	5	5	6d-6	6d-6	5000	10	5	5
M0040	448	160	0	0	1000	1000	5	5	4d-6	4d-6	5000	7	2	5
M0041	448	160	0	0	1000	1000	5	5	2d-6	2d-6	5000	7	2	5
M0042	448	160	0	0	1000	1000	5	5	4d-6	4d-6	5000	5	2	2
M0043	**448**	**160**	**0**	**0**	**1000**	**1000**	**5**	**5**	**4d-6**	**4d-6**	**5000**	**6**	**2**	**4**
M0044	**896**	**320**	**0**	**0**	**1000**	**1000**	**5**	**5**	**2d-6**	**2d-6**	**50000**	**6**	**2**	**4**
M0045	**1792**	**640**	**0**	**0**	**1000**	**1000**	**5**	**5**	**1d-6**	**1d-6**	**50000**	**6**	**2**	**4**
M0151	3584	1280	0	0	1000	1000	5	5	1d-6	1d-6	50000	6	2	4

Conclusões sobre a malha 56x20 nas Tabs. 1 e 2 (UDS):

- Variando só dt, o tcpu mínimo é obtido com dt = 2d-5
- Variando só imax, o tcpu mínimo é obtido com imax = 6
- Variando só nitm_u, o tcpu mínimo é obtido com nitm_u = 2
- Variando só nitm_p, o tcpu mínimo é obtido com nitm_p = 2

Conclusão geral sobre as Tabs. 1 e 2 (UDS):

O parâmetro mais importante para convergir e ter tcpu baixo é o dt

Tabela 2. Resultados para beta2 = 0 (UDS-1)

Caso	NX-2	NY-2	RAM(MB)	it	tcpu(s)	Cd	Fd*
M0001	56	20	5.97	186	0.219	1.047035321009686E+00	9.770678699324458E-01
M0002	56	20	5.97	110	0.125	1.047045634478742E+00	9.770418728994507E-01
M0003	56	20	5.97	334	0.375	1.047041887891844E+00	9.770312860369635E-01
M0004	56	20	5.97	130	0.125	1.047045663241560E+00	9.770249618242429E-01
M0005	56	20	5.97	193	0.203	1.047045182397692E+00	9.769988669118330E-01
M0006	56	20	5.97	844	0.719	1.047043567263500E+00	9.769502187173343E-01
M0007	56	20	5.97	div.			
M0008	**56**	**20**	**5.97**	**101**	**0.110**	**1.047042345227878E+00**	**9.770519671526133E-01**
M0009	56	20	5.97	101	0.125	1.047042311584919E+00	9.770584337317904E-01
M0010	56	20	5.97	93	0.156	1.047044425184396E+00	9.770717681633919E-01
M0011	56	20	5.97	111	0.156	1.047043735613850E+00	9.770519524107928E-01
M0012	56	20	5.97	80	0.141	1.047025390490369E+00	9.770447420480635E-01
M0013	56	20	5.97	80	0.141	1.047024483425773E+00	9.770441254036696E-01
M0014	56	20	5.97	193	0.219	1.047045182611674E+00	9.769960176193170E-01
M0015	56	20	5.97	93	0.172	1.047044181777182E+00	9.770707288322690E-01
M0016	56	20	5.97	83	0.172	1.047041943713138E+00	9.770781328826944E-01
M0017	56	20	5.97	83	0.187	1.047041463090592E+00	9.770790044216098E-01
M0018	112	40	9.29	div.			
M0019	**112**	**40**	**9.29**	**173**	**1.422**	**1.016945790089501E+00**	**9.720819267084129E-01**
M0020	112	40	9.29	436	2.656	1.016946149102106E+00	9.720667754909991E-01
M0021	112	40	9.29	113	1.484	1.016945606013022E+00	9.720940306687990E-01
M0022	112	40	9.29	224	1.828	1.016943782907261E+00	9.720927634262158E-01
M0023	224	80	21.8	div.			
M0024	224	80	21.8	div.			
M0025	224	80	21.8	279	14.672	1.000833776581849E+00	9.702392217141075E-01
M0026	224	80	21.8	410	13.547	1.000834114409102E+00	9.702269063881439E-01
M0027	224	80	21.8	div.			
M0028	224	80	21.8	371	13.453	1.000833732660450E+00	9.702299262316146E-01
M0029	224	80	21.8	297	13.688	1.000833906266946E+00	9.702364062288243E-01
M0030	**224**	**80**	**21.8**	**367**	**13.313**	**1.000833591196057E+00**	**9.702340351865268E-01**
M0031	224	80	21.8	541	19.625	1.000835929024338E+00	9.702446865370240E-01
M0032	224	80	21.8	368	13.360	1.000833477926689E+00	9.702314792896684E-01
M0033	224	80	21.8	391	14.187	1.000834743881367E+00	9.702384469612122E-01
M0034	448	160	70.8	848	4m 16s	9.914732054463778E-01	9.686807500372748E-01
M0035	448	160	70.8	505	8m 12s	9.914714942546474E-01	9.686894451254174E-01
M0036	448	160	70.8	div.			
M0037	448	160	70.8	div.			
M0038	448	160	70.8	div.			
M0039	448	160	70.8	div.			
M0040	448	160	70.8	807	4m 03s	9.914727218180946E-01	9.686835324976371E-01
M0041	448	160	70.8	1425	7m 09s	9.914703100679421E-01	9.686874750922643E-01
M0042	448	160	70.8	div.			
M0043	**448**	**160**	**70.8**	**947**	**3m 43s**	**9.914744286153482E-01**	**9.686785031926335E-01**
M0044	**896**	**320**	**264**	**1868**	**42m 27s**	**9.864699189261750E-01**	**9.677971238123234E-01**
M0045	**1792**	**640**	**1035**	**4361**	**8h 20m**	**9.839182045630680E-01**	**9.673646012720346E-01**
M0151	3584	1280		div.			

Conclusões gerais sobre as Tabs. 3 e 4 (CDS):

- O parâmetro mais importante para convergir é o dt
- Imax e os nitm podem ajudar a convergir
- Imax e os nitm tem grande influência no tcpu

Tabela 3. Dados para beta2 = 1 (CDS-2)

Caso	NX-2	NY-2	beta1	beta2	itb1	itb2	it1	it2	dt1	dt2	itmax	imax	nitm_u	nitm_p
M0046	56	20	1	1	1000	1000	5	5	2d-5	2d-5	50000	6	2	2
M0047	56	20	1	1	1000	1000	5	5	2d-5	2d-5	50000	6	2	4
M0048	56	20	1	1	1000	1000	5	5	4d-5	4d-5	50000	6	2	2
M0049	**56**	**20**	**1**	**1**	**1000**	**1000**	**5**	**5**	**3d-5**	**3d-5**	**50000**	**6**	**2**	**2**
M0050	112	40	1	1	1000	1000	5	5	3d-5	3d-5	50000	6	2	2
M0051	112	40	1	1	1000	1000	5	5	3d-5	3d-5	50000	6	2	4
M0052	112	40	1	1	1000	1000	5	5	2d-5	2d-5	50000	6	2	2
M0053	112	40	1	1	1000	1000	5	5	2d-5	2d-5	50000	6	2	5
M0054	112	40	1	1	1000	1000	5	5	1d-5	1d-5	50000	6	2	5
M0055	112	40	1	1	1000	1000	5	5	1d-5	1d-5	50000	5	2	2
M0056	112	40	1	1	1000	1000	5	5	1d-5	1d-5	50000	2	2	2
M0057	112	40	1	1	1000	1000	5	5	1d-5	1d-5	50000	3	2	2
M0058	**112**	**40**	**1**	**1**	**1000**	**1000**	**5**	**5**	**1d-5**	**1d-5**	**50000**	**4**	**2**	**2**
M0059	224	80	1	1	1000	1000	5	5	1d-5	1d-5	50000	4	2	2
M0060	224	80	1	1	1000	1000	5	5	8d-6	8d-6	50000	4	2	2
M0061	224	80	1	1	1000	1000	5	5	4d-6	4d-6	50000	4	2	2
M0062	224	80	1	1	1000	1000	5	5	6d-6	6d-6	50000	4	2	2
M0063	224	80	1	1	1000	1000	5	5	5d-6	5d-6	50000	4	2	2
M0064	224	80	1	1	1000	1000	5	5	3d-6	3d-6	50000	4	2	2
M0065	**224**	**80**	**1**	**1**	**1000**	**1000**	**5**	**5**	**4d-6**	**4d-6**	**50000**	**3**	**2**	**2**
M0066	224	80	1	1	1000	1000	5	5	4d-6	4d-6	50000	2	1	1
M0067	224	80	1	1	1000	1000	5	5	4d-6	4d-6	50000	2	1	2
M0068	224	80	1	1	1000	1000	5	5	4d-6	4d-6	50000	3	1	2
M0069	448	160	1	1	1000	1000	5	5	2d-6	2d-6	50000	6	2	4
M0070	448	160	1	1	1000	1000	5	5	1d-6	1d-6	50000	6	2	4
M0071	448	160	1	1	1000	1000	5	5	1d-6	1d-6	50000	6	2	8
M0072	448	160	0	1	500	1000	5	5	4d-6	4d-6	50000	6	2	4
M0073	**448**	**160**	**0**	**1**	**500**	**1000**	**5**	**5**	**1d-6**	**1d-6**	**50000**	**6**	**2**	**4**
M0074	896	320	0	1	1000	2000	5	5	1d-6	1d-6	50000	6	2	4
M0075	896	320	0	1	1000	2000	5	5	5d-7	5d-7	50000	6	2	4
M0076	896	320	0	1	1000	2000	5	5	1d-6	1d-6	50000	10	2	8

Tabela 4. Resultados para beta2 = 1 (CDS-2)

Caso	NX-2	NY-2	RAM(MB)	it	tcpu(s)	Cd	Fd*
M0046	56	20	5.97	601	0.734	9.799089552809249E-01	9.648596866280911E-01
M0047	56	20	5.97	601	1.031	9.799085959524390E-01	9.648592709709317E-01
M0048	56	20	5.97	1652	1.968	9.799092090292386E-01	9.648597407789696E-01
M0049	**56**	**20**	**5.97**	**440**	**0.547**	**9.799092208848851E-01**	**9.648597194958245E-01**
M0050	112	40	9.13	div.			
M0051	112	40	9.13	div.			
M0052	112	40	9.13	div.			
M0053	112	40	9.13	div.			
M0054	112	40	9.29	776	6.172	9.808023976246555E-01	9.660903665892887E-01
M0055	112	40	9.29	789	3.703	9.808019890216141E-01	9.660898361687382E-01
M0056	112	40	9.29	div.			
M0057	112	40	9.29	10415	42.000	9.808013069059980E-01	9.660893671241011E-01
M0058	**112**	**40**	**9.29**	**795**	**3.484**	**9.808017622935634E-01**	**9.660895953061660E-01**
M0059	224	80		div.			
M0060	224	80		div.			
M0061	224	80	21.8	1232	22.984	9.810670566330217E-01	9.665958787393010E-01
M0062	224	80	21.8	div.			
M0063	224	80	21.8	1407	26.250	9.810663649140562E-01	9.665963765383406E-01
M0064	224	80	21.8	1573	29.265	9.810673245068631E-01	9.665962792531908E-01
M0065	**224**	**80**	**21.8**	**1263**	**22.141**	**9.810661004020121E-01**	**9.665954863108084E-01**
M0066	224	80	21.8	div.			
M0067	224	80	21.8	div.			
M0068	224	80	21.8	1497	22.422	9.810660784756048E-01	9.665961160212487E-01
M0069	448	160	70.0	div.			
M0070	448	160		div.			
M0071	448	160		div.			
M0072	448	160		div.			
M0073	**448**	**160**	**70.2**	**2848**	**11m 11s**	**9.812362587901202E-01**	**9.668048247193438E-01**
M0074	896	320	263	div.			
M0075	896	320		div.			
M0076	896	320		div.			

Nas Tabs. 5 e 6, os dados e resultados em azul são referências extraídas das Tabs. 1 a 4.

Tabela 5. Dados para beta2 = 1 (CDS-2) com beta1 = 0

Caso	NX-2	NY-2	beta1	beta2	itb1	itb2	it1	it2	dt1	dt2	itmax	imax	nitm_u	nitm_p
M0008	**56**	**20**	**0**	**0**	**1000**	**1000**	**5**	**5**	**2d-5**	**2d-5**	**5000**	**6**	**2**	**2**
M0049	**56**	**20**	**1**	**1**	**1000**	**1000**	**5**	**5**	**3d-5**	**3d-5**	**50000**	**6**	**2**	**2**
M0077	56	20	0	1	101	101	5	5	2d-5	2d-5	50000	6	2	2
M0078	56	20	0	1	100	200	5	5	2d-5	2d-5	50000	6	2	2
M0079	56	20	0	1	100	200	5	5	3d-5	3d-5	50000	6	2	2
M0080	56	20	0	1	50	100	5	5	2d-5	2d-5	50000	6	2	2
M0081	56	20	0	1	25	50	5	5	2d-5	2d-5	50000	6	2	2
M0082	56	20	0	1	10	20	5	5	2d-5	2d-5	50000	6	2	2
M0083	56	20	0	1	5	10	5	5	2d-5	2d-5	50000	6	2	2
M0084	56	20	0	1	5	50	5	5	2d-5	2d-5	50000	6	2	2
M0085	56	20	0	1	5	10	5	5	3d-5	3d-5	50000	6	2	2
M0086	56	20	0	1	5	10	5	5	4d-5	4d-5	50000	6	2	2
M0087	56	20	0	1	1	2	5	5	2d-5	2d-5	50000	6	2	2
M0088	56	20	0	1	1	2	5	5	2d-5	2d-5	50000	2	1	1
M0089	56	20	0	1	1	2	5	5	2d-5	2d-5	50000	3	1	1
M0090	56	20	0	1	1	2	5	5	2d-5	2d-5	50000	4	1	1
M0091	56	20	0	1	1	2	5	5	2d-5	2d-5	50000	5	1	1
M0092	56	20	0	1	1	2	5	5	2d-5	2d-5	50000	6	1	1
M0093	56	20	0	1	1	2	5	5	2d-5	2d-5	50000	6	1	2
M0094	56	20	0	1	1	2	5	5	2d-5	2d-5	50000	4	2	2
M0095	56	20	0	1	1	2	5	5	2d-5	2d-5	50000	3	2	2
M0096	56	20	0	1	1	2	5	5	2d-5	2d-5	50000	3	3	3
M0097	**56**	**20**	**0**	**1**	**1**	**2**	**5**	**5**	**2d-5**	**2d-5**	**50000**	**2**	**3**	**3**
M0098	56	20	0	1	1	2	5	5	2d-5	2d-5	50000	1	3	3
M0099	56	20	0	1	1	2	5	5	2d-5	2d-5	50000	2	2	2
M0019	**112**	**40**	**0**	**0**	**1000**	**1000**	**5**	**5**	**2d-5**	**2d-5**	**5000**	**6**	**2**	**5**
M0058	**112**	**40**	**1**	**1**	**1000**	**1000**	**5**	**5**	**1d-5**	**1d-5**	**50000**	**4**	**2**	**2**
M0100	112	40	0	1	1	2	5	5	2d-5	2d-5	50000	2	3	3
M0101	112	40	0	1	1	2	5	5	1d-5	1d-5	50000	2	3	3
M0102	112	40	0	1	1	2	5	5	2d-5	2d-5	50000	6	2	5
M0103	112	40	0	1	1	2	5	5	1d-5	1d-5	50000	4	2	2
M0104	112	40	0	1	2	4	5	5	2d-5	2d-5	50000	6	2	5
M0105	112	40	0	1	5	10	5	5	2d-5	2d-5	50000	6	2	5
M0106	112	40	0	1	1	2	5	5	2d-5	2d-5	50000	4	2	2
M0107	112	40	0	1	1	2	5	5	2d-5	2d-5	50000	5	5	5
M0108	112	40	0	1	1	2	5	5	3d-5	3d-5	50000	5	5	5
M0109	112	40	0	1	1	2	5	5	3d-5	3d-5	50000	6	6	6
M0110	112	40	0	1	1	2	5	5	3d-5	3d-5	50000	10	10	10
M0111	112	40	0	1	1	2	5	5	2d-5	2d-5	50000	4	4	4
M0112	112	40	0	1	1	2	5	5	2d-5	2d-5	50000	6	6	6
M0113	112	40	1	1	1	2	5	5	2d-5	2d-5	50000	5	5	5
M0114	112	40	0	1	2	4	5	5	2d-5	2d-5	50000	5	5	5
M0115	112	40	0	1	4	8	5	5	2d-5	2d-5	50000	5	5	5
M0116	**112**	**40**	**0**	**1**	**8**	**16**	**5**	**5**	**2d-5**	**2d-5**	**50000**	**5**	**5**	**5**
M0117	112	40	0	1	16	32	5	5	2d-5	2d-5	50000	5	5	5
M0118	112	40	0	1	8	8	5	5	2d-5	2d-5	50000	5	5	5
M0030	**224**	**80**	**0**	**0**	**1000**	**1000**	**5**	**5**	**8d-6**	**8d-6**	**5000**	**7**	**2**	**5**
M0065	**224**	**80**	**1**	**1**	**1000**	**1000**	**5**	**5**	**4d-6**	**4d-6**	**50000**	**3**	**2**	**2**
M0119	224	80	0	1	8	16	5	5	8d-6	8d-6	50000	5	5	5
M0120	224	80	0	1	8	16	5	5	9d-6	9d-6	50000	5	5	5
M0121	224	80	0	1	8	16	5	5	9d-6	9d-6	50000	10	10	10
M0122	224	80	0	1	8	16	5	5	1d-5	1d-5	50000	10	10	10
M0123	224	80	0	1	8	16	5	5	2d-5	2d-5	50000	10	10	10
M0124	224	80	0	1	8	16	5	5	2d-5	2d-5	50000	10	10	20
M0125	224	80	0	1	8	16	5	5	2d-5	2d-5	50000	20	20	20
M0126	224	80	0	1	8	16	5	5	2d-6	2d-6	50000	40	40	40
M0127	224	80	0	1	8	16	5	5	8d-6	8d-6	50000	4	4	4
M0128	224	80	0	1	8	16	5	5	8d-6	8d-6	50000	6	6	6
M0129	224	80	0	1	1	2	5	5	8d-6	8d-6	50000	5	5	5
M0130	224	80	0	1	16	32	5	5	8d-6	8d-6	50000	5	5	5
M0131	224	80	0	1	16	16	5	5	8d-6	8d-6	50000	5	5	5
M0132	224	80	0	1	8	8	5	5	8d-6	8d-6	50000	5	5	5

M0133	**224**	**80**	**0**	**1**	**4**	**8**	**5**	**5**	**8d-6**	**8d-6**	**50000**	**5**	**5**	**5**
M0134	224	80	0	1	2	4	5	5	8d-6	8d-6	50000	5	5	5
M0043	**448**	**160**	**0**	**0**	**1000**	**1000**	**5**	**5**	**4d-6**	**4d-6**	**5000**	**6**	**2**	**4**
M0073	**448**	**160**	**0**	**1**	**500**	**1000**	**5**	**5**	**1d-6**	**1d-6**	**50000**	**6**	**2**	**4**
M0135	448	160	0	1	4	8	5	5	4d-6	4d-6	50000	5	5	5
M0136	448	160	0	1	4	8	5	5	4d-6	4d-6	50000	6	6	6
M0137	448	160	0	1	8	16	5	5	4d-6	4d-6	50000	6	6	6
M0138	448	160	0	1	4	8	5	5	4d-6	4d-6	50000	10	10	10
M0139	448	160	0	1	4	8	5	5	4d-6	4d-6	50000	6	2	4
M0140	448	160	0	1	4	8	5	5	3d-6	3d-6	50000	5	5	5
M0141	448	160	0	1	4	8	5	5	8d-6	8d-6	50000	5	5	5
M0142	448	160	0	1	4	8	5	5	3d-6	3d-6	50000	10	10	10
M0143	448	160	0	1	4	8	5	5	3d-6	3d-6	50000	20	20	20
M0144	448	160	0	1	4	8	5	5	3d-6	3d-6	50000	20	20	20
M0145	448	160	0	1	4	8	5	5	2d-6	2d-6	50000	5	5	5
M0146	448	160	0	1	4	8	5	5	2d-6	2d-6	50000	6	6	6
M0147	448	160	0	1	4	8	5	5	2d-6	2d-6	50000	10	10	10
M0148	448	160	0	1	4	8	5	5	1d-6	1d-6	50000	5	5	5
M0149	448	160	0	1	4	8	5	5	1d-6	1d-6	50000	6	6	6
M0150	448	160	0	1	4	8	5	5	1d-6	1d-6	50000	6	2	4
M0152	448	160	0	1	100	200	5	5	1d-6	1d-6	50000	6	2	4
M0153	448	160	0	1	1	2	5	5	1d-6	1d-6	50000	5	5	5
M0154	448	160	0	1	1	2	5	5	1d-6	1d-6	50000	10	10	10
M0155	448	160	0	1	8	16	5	5	1d-6	1d-6	50000	5	5	5
M0156	448	160	0	1	200	400	200	400	4d-6	1d-6	50000	6	2	4
M0157	448	160	0	1	200	400	200	400	1d-6	4d-6	50000	6	2	4
M0158	448	160	0	1	200	400	200	400	4d-6	1d-6	50000	5	2	4
M0159	448	160	0	1	100	200	50	100	8d-6	4d-6	50000	6	2	4
M0160	448	160	0	1	200	400	200	400	4d-6	2d-6	50000	6	2	4
M0161	448	160	0	1	200	400	200	400	4d-6	4d-6	50000	6	2	4
M0162	448	160	0	1	200	400	200	400	4d-6	3d-6	50000	6	2	4
M0163	448	160	0	1	200	500	200	500	4d-6	2d-6	50000	6	2	4
M0164	448	160	0	1	500	600	500	600	4d-6	2d-6	50000	6	2	4
M0165	448	160	0	1	100	200	100	200	4d-6	2d-6	50000	6	2	4
M0166	**448**	**160**	**0**	**1**	**200**	**500**	**200**	**500**	**4d-6**	**2d-6**	**50000**	**5**	**5**	**5**
M0044	**896**	**320**	**0**	**0**	**1000**	**1000**	**5**	**5**	**2d-6**	**2d-6**	**50000**	**6**	**2**	**4**
M0167	896	320	0	1	200	500	200	500	2d-6	1d-6	50000	5	5	5
M0168	896	320	0	1	200	500	200	500	2d-6	2d-6	50000	5	5	5
M0169	896	320	0	1	10	20	10	20	2d-6	1d-6	50000	5	5	5
M0170	896	320	0	1	10	20	100	200	2d-6	2d-6	50000	5	5	5
M0171	896	320	0	1	10	20	100	200	2d-6	1d-6	50000	5	5	5
M0172	896	320	0	1	100	200	100	200	2d-6	1d-6	50000	10	10	10
M0173	896	320	0	1	10	20	10	20	2d-6	1d-6	50000	10	10	10
M0174	896	320	0	1	10	20	10	20	4d-6	2d-6	50000	5	5	5
M0175	896	320	0	1	10	20	5	10	2d-6	1d-6	50000	5	5	5
M0176	896	320	0	1	10	20	50	100	2d-6	1d-6	50000	5	5	5

M0144: tolerance = 1d-10

Tabela 6. Resultados para beta2 = 1 (CDS-2) com beta1 = 0

Caso	NX-2	NY-2	RAM(MB)	it	tcpu(s)	Cd	Fd*
M0008	**56**	**20**	**5.97**	**101**	**0.110**	**1.047042345227878E+00**	**9.770519671526133E-01**
M0049	**56**	**20**	**5.97**	**440**	**0.547**	**9.799092208848851E-01**	**9.648597194958245E-01**
M0077	56	20	5.97	1378	1.859	9.799089552809249E-01	9.648596866280911E-01
M0078	56	20	5.97	583	0.688	9.799091292672070E-01	9.648599152038664E-01
M0079	56	20	5.97	475	0.563	9.799091892867871E-01	9.648600975818549E-01
M0080	56	20	5.97	491	0.594	9.799093079722307E-01	9.648598757728722E-01
M0081	56	20	5.97	445	0.547	9.799093527667321E-01	9.648598603672244E-01
M0082	56	20	5.97	415	0.485	9.799093120010354E-01	9.648599172166281E-01
M0083	56	20	5.97	406	0.468	9.799092850117203E-01	9.648598496183937E-01
M0084	56	20	5.97	442	0.516		
M0085	56	20	5.97	384	0.453		
M0086	56	20	5.97	809	0.953		
M0087	56	20	5.97	375	0.438		
M0088	56	20	5.97	div.			
M0089	56	20	5.97	div.			
M0090	56	20	5.97	1208	0.890		
M0091	56	20	5.97	557	0.454		
M0092	56	20	5.97	558	0.468		
M0093	56	20	5.97	555	0.594		
M0094	56	20	5.97	375	0.390		

M0095	56	20	5.97	375	0.359		
M0096	56	20	5.97	307	0.360		
M0097	**56**	**20**	**5.97**	**307**	**0.312**	**9.799072662593690E-01**	**9.648601490349435E-01**
M0098	56	20	5.97	div.			
M0099	56	20	5.97	1385	1.156		
M0019	**112**	**40**	**9.29**	**173**	**1.422**	**1.016945790089501E+00**	**9.720819267084129E-01**
M0058	**112**	**40**	**9.29**	**795**	**3.484**	**9.808017622935634E-01**	**9.660895953061660E-01**
M0100	112	40		div.			
M0101	112	40	9.29	9942	45.187	9.808011115293723E-01	9.660891263751880E-01
M0102	112	40		div.			
M0103	112	40		570	2.484		
M0104	112	40		div.			
M0105	112	40		div.			
M0106	112	40		div.			
M0107	112	40		237	2.078	9.808029747239145E-01	9.660904673120780E-01
M0108	112	40		div.			
M0109	112	40		div.			
M0110	112	40		div.			
M0111	112	40		div.			
M0112	112	40		223	2.468		
M0113	112	40		275	2.406		
M0114	112	40		235	2.063		
M0115	112	40		236	2.062		
M0116	**112**	**40**		**216**	**1.906**	**9.808003463133458E-01**	**9.660881817902192E-01**
M0117	112	40		236	2.062		
M0118	112	40		236	2.078		
M0030	**224**	**80**	**21.8**	**367**	**13.313**	**1.000833591196057E+00**	**9.702340351865268E-01**
M0065	**224**	**80**	**21.8**	**1263**	**22.141**	**9.810661004020121E-01**	**9.665954863108084E-01**
M0119	224	80		366	13.547	9.810685756385558E-01	9.666040693149004E-01
M0120	224	80		div.			
M0121	224	80		162	15.891		
M0122	224	80		165	16.266		
M0123	224	80		div.			
M0124	224	80		div.			
M0125	224	80		div.			
M0126	224	80		div.			
M0127	224	80		div.			
M0128	224	80		296	13.734		
M0129	224	80		389	14.328		
M0130	224	80		367	13.516		
M0131	224	80		366	13.500		
M0132	224	80		367	13.625		
M0133	**224**	**80**		**367**	**13.531**	**9.810692516792514E-01**	**9.666053757869543E-01**
M0134	224	80		367	13.578		
M0043	**448**	**160**	**70.8**	**947**	**3m 43s**	**9.914744286153482E-01**	**9.686785031926335E-01**
M0073	**448**	**160**	**70.2**	**2848**	**11m 11s**	**9.812362587901202E-01**	**9.668048247193438E-01**
M0135	448	160		div.			
M0136	448	160		div.			
M0137	448	160		div.			
M0138	448	160		div.			
M0139	448	160		div.			
M0140	448	160		div.			
M0141	448	160		div.			
M0142	448	160		div.			
M0143	448	160		51	2m 29s	? 9.433283923000676E-01	? 9.074167597053472E-01
M0144	448	160		div.			
M0145	448	160		div.			
M0146	448	160		div.			
M0147	448	160		div.			
M0148	448	160		div.			
M0149	448	160		div.			
M0150	448	160		div.			
M0152	448	160		div.			
M0153	448	160		div.			
M0154	448	160		div.			
M0155	448	160		div.			
M0156	448	160	70.8	1595	6m 15s	9.812319767154388E-01	9.668021460251690E-01
M0157	448	160		div.			
M0158	448	160		1764	6m 14s		
M0159	448	160		div.			
M0160	448	160		1221	4m 48s		
M0161	448	160		div.			
M0162	448	160		div.			

M0163	448	160		1170	4m 35s		
M0164	448	160		div.			
M0165	448	160		div.			
M0166	**448**	**160**		**722**	**3m 45s**	**9.812525226503011E-01**	**9.668380507034293E-01**
M0044	**896**	**320**	**264**	**1868**	**42m 27s**	**9.864699189261750E-01**	**9.677971238123234E-01**
M0167	896	320		div.			
M0168	896	320		div.			
M0169	896	320		div.			
M0170	896	320		div.			
M0171	896	320		div.			
M0172	896	320		div.			
M0173	896	320		div.			
M0174	896	320		div.			
M0175	896	320		div.			
M0176	896	320		div.			

Conclusões gerais sobre as Tabs. 5 e 6 [beta2 = 1 (CDS-2) com beta1 = 0]:

- Em todas as malhas foi possível reduzir significativamente o tcpu para obter a solução CDS. A redução é mais significativa nas malhas mais finas, nas quais o tcpu resultante para o CDS é quase o mesmo do UDS.

- Para cada malha teve-se que usar valores diferentes no itb1, itb2, it1, it2, dt1, dt2, imax, nitm_u e nitm_p, não havendo, portanto, um padrão para se obter a convergência, com redução do tcpu.