
$$\nabla \times \nabla \times \vec{u} + c\vec{u} = \vec{f}$$

Nedelec₁ - order 1

	Total DoF	Soln Time	B-L2	L2-order	B-Curl	Curl-order
0	28	1.42e-04	7.0716e-01	0.00	6.2831e+00	0.00
1	104	1.76e-04	3.1843e-01	1.15	2.5051e+00	1.33
2	400	6.90e-04	1.6044e-01	0.99	1.1958e+00	1.07
3	1568	3.05e-03	8.0190e-02	1.00	5.8605e-01	1.03
4	6208	1.87e-02	4.0084e-02	1.00	2.9136e-01	1.01
5	24704	1.23e-01	2.0040e-02	1.00	1.4547e-01	1.00
6	98560	7.99e-01	1.0020e-02	1.00	7.2706e-02	1.00

Nedelec₁ - order 2

	Total DoF	Soln Time	B-L2	L2-order	B-Curl	Curl-order
0	88	2.77e-04	1.4222e-01	0.00	7.8349e-01	0.00
1	336	4.29e-04	4.7178e-02	1.59	4.4258e-01	0.82
2	1312	2.06e-03	1.1869e-02	1.99	1.1146e-01	1.99
3	5184	1.15e-02	2.9788e-03	1.99	2.7943e-02	2.00
4	20608	9.70e-02	7.4552e-04	2.00	6.9910e-03	2.00
5	82176	5.45e-01	1.8643e-04	2.00	1.7481e-03	2.00
6	328192	7.06e+00	4.6612e-05	2.00	4.3704e-04	2.00

Nedelec₂ - order 1

	Total DoF	Soln Time	B-L2	L2-order	B-Curl	Curl-order
0	56	1.69e-04	7.0710e-01	0.00	6.2831e+00	0.00
1	208	3.31e-04	2.1056e-01	1.75	2.4973e+00	1.33
2	800	1.55e-03	6.0010e-02	1.81	1.1945e+00	1.06
3	3136	9.14e-03	1.5493e-02	1.95	5.8587e-01	1.03
4	12416	6.97e-02	3.9043e-03	1.99	2.9134e-01	1.01
5	49408	5.01e-01	9.7802e-04	2.00	1.4546e-01	1.00
6	197120	7.05e+00	2.4463e-04	2.00	7.2705e-02	1.00

Nedelec₂ - order 2

	Total DoF	Soln Time	B-L2	L2-order	B-Curl	Curl-order
0	132	2.46e-04	3.0169e-02	0.00	7.8388e-01	0.00
1	504	1.14e-03	1.3531e-02	1.16	4.3854e-01	0.84
2	1968	4.20e-03	1.6029e-03	3.08	1.1120e-01	1.98
3	7776	2.45e-02	1.9768e-04	3.02	2.7927e-02	1.99
4	30912	1.89e-01	2.4627e-05	3.00	6.9900e-03	2.00
5	123264	1.43e+00	3.0758e-06	3.00	1.7480e-03	2.00
6	492288	1.47e+01	3.8439e-07	3.00	4.3704e-04	2.00

Maxwell saddle point - $c = 0$

(Nedelec₁,CG₁) - (1,1)

	Total DoF	B DoF	Soln Time	B-L2	L2-order	B-Curl	Curl-order
0	41	28	0.00	5.9415e-02	0.00	2.3570e-01	0
1	145	104	0.00	2.9524e-02	1.01	1.1785e-01	1
2	545	400	0.01	1.4739e-02	1.00	5.8926e-02	1
3	2113	1568	0.03	7.3667e-03	1.00	2.9463e-02	1
4	8321	6208	0.12	3.6830e-03	1.00	1.4731e-02	1
5	33025	24704	0.59	1.8414e-03	1.00	7.3657e-03	1
6	131585	98560	2.91	9.2071e-04	1.00	3.6828e-03	1

	Total DoF	R DoF	Soln Time	R-L2	R-order	R-H1	H1-order
0	41	13	0.00	1.0257e-02	0.00	6.9112e-02	0.00
1	145	41	0.00	2.5760e-03	1.99	3.3734e-02	1.03
2	545	145	0.01	6.4320e-04	2.00	1.6760e-02	1.01
3	2113	545	0.03	1.6072e-04	2.00	8.3667e-03	1.00
4	8321	2113	0.12	4.0176e-05	2.00	4.1817e-03	1.00
5	33025	8321	0.59	1.0044e-05	2.00	2.0906e-03	1.00
6	131585	33025	2.91	2.5109e-06	2.00	1.0453e-03	1.00

(Nedelec₁,CG₁) - (2,2)

	Total DoF	B DoF	Soln Time	B-L2	L2-order	B-Curl	Curl-order
0	129	88	0.00	7.0820e-03	0	2.6736e-04	0.00
1	481	336	0.01	1.7705e-03	2	3.9471e-05	2.76
2	1857	1312	0.03	4.4262e-04	2	5.1382e-06	2.94
3	7297	5184	0.10	1.1066e-04	2	6.4885e-07	2.99
4	28929	20608	0.44	2.7664e-05	2	8.1314e-08	3.00
5	115201	82176	2.24	6.9160e-06	2	1.0171e-08	3.00
6	459777	328192	11.09	1.7290e-06	2	1.2739e-09	3.00

	Total DoF	R DoF	Soln Time	R-L2	R-order	R-H1	H1-order
0	129	41	0.00	4.2403e-04	0.00	1.2952e-02	0.00
1	481	145	0.01	5.3673e-05	2.98	3.1099e-03	2.06
2	1857	545	0.03	6.7369e-06	2.99	7.6935e-04	2.02
3	7297	2113	0.10	8.4321e-07	3.00	1.9183e-04	2.00
4	28929	8321	0.44	1.0544e-07	3.00	4.7926e-05	2.00
5	115201	33025	2.24	1.3148e-08	3.00	1.1980e-05	2.00
6	459777	131585	11.09	1.3649e-09	3.27	2.9948e-06	2.00

MHD

No coupling - orders (2,1,2,2)

	Total DoF	V DoF	Soln Time	V-L2	L2-order	V-H1	H1-order
0	224	82	0.00	1.05e-03	0.00	2.74e-02	0
1	812	290	0.01	1.30e-04	3.02	6.87e-03	2
2	3092	1090	0.06	1.61e-05	3.01	1.72e-03	2
3	12068	4226	0.29	2.01e-06	3.00	4.30e-04	2
4	47684	16642	1.44	2.36e-07	3.09	1.08e-04	2
5	189572	66050	7.84	7.83e-08	1.59	2.69e-05	2

	Total DoF	P DoF	Soln Time	P-L2	L2-order
0	224	13	0.00	1.00e-02	0.00
1	812	41	0.01	2.47e-03	2.02
2	3092	145	0.06	6.21e-04	1.99
3	12068	545	0.29	1.56e-04	2.00
4	47684	2113	1.44	3.90e-05	2.00
5	189572	8321	7.84	9.74e-06	2.00

	Total DoF	B DoF	Soln Time	B-L2	L2-order	B-Curl	Curl-order
0	224	88	0.00	6.86e-03	0.00	3.31e-02	0
1	812	336	0.01	1.76e-03	1.97	8.27e-03	2
2	3092	1312	0.06	4.42e-04	1.99	2.07e-03	2
3	12068	5184	0.29	1.11e-04	2.00	5.17e-04	2
4	47684	20608	1.44	2.77e-05	2.00	1.29e-04	2
5	189572	82176	7.84	6.92e-06	2.00	3.23e-05	2

	Total DoF	R DoF	Soln Time	R-L2	R-order	R-H1	H1-order
0	224	41	0.00	5.22e-04	0.00	1.29e-02	0.00
1	812	145	0.01	6.48e-05	3.01	3.10e-03	2.05
2	3092	545	0.06	8.10e-06	3.00	7.69e-04	2.01
3	12068	2113	0.29	1.01e-06	3.00	1.92e-04	2.00
4	47684	8321	1.44	1.27e-07	3.00	4.79e-05	2.00
5	189572	33025	7.84	1.58e-08	3.00	1.20e-05	2.00

Coupled - orders (2,1,2,2)

	Total DoF	V DoF	Soln Time	V-L2	L2-order	V-H1	H1-order
0	224	82	0.00	1.05e-03	0.00	2.74e-02	0
1	812	290	0.02	1.30e-04	3.02	6.87e-03	2
2	3092	1090	0.11	1.61e-05	3.01	1.72e-03	2
3	12068	4226	0.54	2.01e-06	3.00	4.30e-04	2
4	47684	16642	2.90	2.36e-07	3.09	1.08e-04	2
5	189572	66050	17.11	7.86e-08	1.59	2.69e-05	2

	Total DoF	P DoF	Soln Time	P-L2	L2-order
0	224	13	0.00	1.00e-02	0.00
1	812	41	0.02	2.47e-03	2.02
2	3092	145	0.11	6.21e-04	1.99
3	12068	545	0.54	1.56e-04	2.00
4	47684	2113	2.90	3.90e-05	2.00
5	189572	8321	17.11	9.74e-06	2.00

	Total DoF	B DoF	Soln Time	B-L2	L2-order	B-Curl	Curl-order
0	224	88	0.00	6.86e-03	0.00	3.31e-02	0
1	812	336	0.02	1.76e-03	1.97	8.27e-03	2
2	3092	1312	0.11	4.42e-04	1.99	2.07e-03	2
3	12068	5184	0.54	1.11e-04	2.00	5.17e-04	2
4	47684	20608	2.90	2.77e-05	2.00	1.29e-04	2
5	189572	82176	17.11	6.92e-06	2.00	3.23e-05	2

	Total DoF	R DoF	Soln Time	R-L2	R-order	R-H1	H1-order
0	224	41	0.00	5.06e-04	0.00	1.31e-02	0.00
1	812	145	0.02	6.44e-05	2.97	3.12e-03	2.07
2	3092	545	0.11	8.09e-06	2.99	7.70e-04	2.02
3	12068	2113	0.54	1.01e-06	3.00	1.92e-04	2.00
4	47684	8321	2.90	1.27e-07	3.00	4.79e-05	2.00
5	189572	33025	17.11	1.58e-08	3.00	1.20e-05	2.00
