In this tests we will consider: In this test we will consider:



- $\psi(x) = \exp(x)$
- $\psi_1 = 1$ ;
- $\psi_{ll} = 1$ ;
- $\psi_{\rm r} = 1$ ;
- $\psi_{rr} = 1$ ;
- $g(x) = -\exp(x)$ .

Table 1: Test of  $01\_01$  with d and d+1 (exp(x) – constant mesh).

			$\omega =$	: 1 1	$\omega = 1 3$				
	I	$E_1$	$\mathcal{O}_1$	$E_{\infty}$	$\mathcal{O}_{\infty}$	$E_1$	$\mathcal{O}_1$	$E_{\infty}$	$\mathcal{O}_{\infty}$
	50	1.09E-05		1.72E-05	_	8.41E-06		1.36E-05	
TD.	100	1.34E-06	3.02	2.10E-06	3.03	1.02E-06	3.04	1.65E-06	3.04
$\mathbb{P}_3$	150	3.84E-07	3.08	5.99E-07	3.09	2.92E-07	3.10	4.68E-07	3.11
	200	1.57E-07	3.12	2.43E-07	3.14	1.17E-07	3.16	1.88E-07	3.16
	50	3.38E-06		6.75E-06	_	1.31E-06		2.11E-06	
ID /ID	100	6.77E-07	2.32	1.22E-06	2.47	1.43E-07	3.19	2.23E-07	3.24
$\mathbb{P}_3/\mathbb{P}_4$	150	2.40E-07	2.56	4.14E-07	2.67	3.09E-08	3.77	5.31E-08	3.54
	200	1.10E-07	2.71	1.85E-07	2.79	7.66E-09	4.85	1.84E-08	3.69
	50	3.85E-07		7.68E-07	_	3.08E-07		6.06E-07	
TD	100	1.11E-07	1.79	2.10E-07	1.87	9.29E-08	1.73	1.76E-07	1.78
$\mathbb{P}_4$	150	5.07E - 08	1.93	9.53E - 08	1.95	4.28E-08	1.91	8.06E-08	1.93
	200	2.88E-08	1.97	5.42E-08	1.96	2.44E-08	1.95	4.59E-08	1.95
	50	4.32E-07		8.31E-07	_	3.75E-07	_	7.09E-07	
$\mathbb{P}_4/\mathbb{P}_5$	100	1.14E-07	1.92	2.15E-07	1.95	9.76E - 08	1.94	1.83E-07	1.95
1 4/ 1 5	150	5.14E-08	1.97	9.64E - 08	1.98	4.37E-08	1.98	8.21E-08	1.98
	200	2.90E-08	1.99	5.44E-08	1.99	2.46E-08	2.00	4.62E-08	2.00
	50	1.51E-09		2.16E-09	_	9.32E-10	_	1.46E-09	_
$\mathbb{P}_5$	100	3.51E-11	5.42	5.35E-11	5.34	2.82E-11	5.05	4.55E-11	5.00
<b>1</b> 5	150	1.03E-12	8.69	2.29E-12	7.77	4.31E-12	4.64	8.16E-12	4.24
	200	7.66E-12	$\uparrow$	1.72E-11	$\uparrow$	1.27E-11	$\uparrow$	2.52E-11	$\uparrow$
	50	1.59E-09		2.43E-09	_	5.19E-10		8.43E-10	
$\mathbb{P}_5/\mathbb{P}_6$	100	2.91E-11	5.78	4.46E-11	5.77	1.53E-11	5.08	2.45E-11	5.10
<b>п</b> 5/ <b>п</b> 6	150	4.40E-12	4.66	7.42E-12	4.42	2.38E-12	4.59	5.77E-12	3.57
	200	6.46E-12	<b>↑</b>	1.27E-11	<b>↑</b>	6.74E-12	<b>1</b>	1.58E-11	<u></u>

Table 2: Test of  $01\_01$  with d and d+1 (exp(x) – non-constant mesh).

			ω =	: 1 1	$\omega = 1 3$				
	I	$E_1$	$\mathcal{O}_1$	$E_{\infty}$	$\mathcal{O}_{\infty}$	$E_1$	$\mathcal{O}_1$	$E_{\infty}$	$\mathcal{O}_{\infty}$
	50	1.14E-05	_	1.79E-05		7.04E-06	_	1.05E-05	_
ΤD	100	1.30E-06	3.13	2.02E-06	3.15	6.72E - 07	3.39	9.69E-07	3.44
$\mathbb{P}_3$	150	3.35E-07	3.35	5.18E-07	3.35	1.30E-07	4.05	2.12E-07	3.75
	200	1.18E-07	3.62	1.88E-07	3.53	2.65E-08	5.53	6.98E-08	3.85
	50	1.40E-06		2.30E-06	_	3.20E-07		8.76E-07	
TD /TD	100	2.42E-07	2.53	4.06E-07	2.50	2.10E-07	0.61	4.63E-07	0.92
$\mathbb{P}_3/\mathbb{P}_4$	150	6.95E-08	3.08	1.36E-07	2.70	1.28E-07	1.22	2.66E-07	1.37
	200	2.25E-08	3.91	6.02E-08	2.83	8.32E-08	1.49	1.68E-07	1.60
	50	7.17E-08		1.61E-07		7.74E-08		1.31E-07	
πD	100	3.09E-08	1.22	6.13E-08	1.39	2.80E-08	1.46	5.46E-08	1.26
$\mathbb{P}_4$	150	1.64E-08	1.55	3.16E-08	1.64	1.44E-08	1.65	2.75E-08	1.70
	200	1.01E-08	1.68	1.96E-08	1.66	8.52E-09	1.82	1.61E-08	1.84
	50	9.44E-08		2.11E-07	_	1.04E-07		2.05E-07	_
$\mathbb{P}_4/\mathbb{P}_5$	100	3.74E-08	1.34	7.21E-08	1.55	3.29E-08	1.66	6.27E - 08	1.71
и 4/и 5	150	1.82E-08	1.77	3.44E-08	1.82	1.54E-08	1.87	2.92E-08	1.89
	200	1.02E-08	2.00	1.94E-08	1.98	8.86E-09	1.93	1.67E-08	1.94
	50	2.80E-09		4.63E-09	_	2.25E-09	_	3.76E-09	_
TD_	100	1.17E-10	4.59	2.01E-10	4.53	1.07E-10	4.40	1.87E-10	4.33
$\mathbb{P}_5$	150	1.88E-11	4.50	3.31E-11	4.44	1.94E-11	4.20	3.49E-11	4.14
	200	4.60E-12	4.89	8.42E-12	4.76	7.54E-12	3.29	1.35E-11	3.29
	50	5.59E-10	_	1.10E-09	_	2.00E-10		4.56E-10	
$\mathbb{P}_5/\mathbb{P}_6$	100	1.42E-11	5.30	2.71E-11	5.34	3.09E-11	2.69	6.53E-11	2.80
п 5/п 6	150	5.27E-12	2.45	1.12E-11	2.17	9.05E-12	3.03	1.83E-11	3.13
	200	1.76E-12	3.82	3.66E-12	3.89	1.26E-11	<u> </u>	2.47E-11	<u></u>

In this test we will consider:

• 
$$\psi(x) = -\exp(x) + \mathbb{P}_3$$

• 
$$\psi_{l} = 0$$
;

• 
$$\psi_{ll}=0$$
;

• 
$$\psi_{\rm r}=0$$
;

• 
$$\psi_{\rm rr}=0$$
;

• 
$$g(x) = \exp(x)$$
.

Table 3: Test of  $01\_01$  with d and d+1 (exp(x) +  $\mathbb{P}_3$  – constant mesh).

			$\omega =$	: 1 1	$\omega = 1 3$				
	I	$E_1$	$\mathcal{O}_1$	$E_{\infty}$	$\mathcal{O}_{\infty}$	$\overline{E_1}$	$\mathcal{O}_1$	$E_{\infty}$	$\mathcal{O}_{\infty}$
	50	1.09E-05		1.72E-05		8.41E-06		1.36E-05	
TD.	100	1.34E-06	3.02	2.10E-06	3.03	1.02E-06	3.04	1.65E-06	3.04
$\mathbb{P}_3$	150	3.84E-07	3.08	5.99E-07	3.09	2.92E-07	3.10	4.68E-07	3.11
	200	1.56E-07	3.12	2.43E-07	3.14	1.17E-07	3.16	1.88E-07	3.16
	50	3.38E-06		6.75E-06	_	1.31E-06	_	2.11E-06	_
TD /TD	100	6.77E-07	2.32	1.22E-06	2.47	1.43E-07	3.19	2.23E-07	3.24
$\mathbb{P}_3/\mathbb{P}_4$	150	2.40E-07	2.56	4.14E-07	2.67	3.09E-08	3.77	5.31E-08	3.54
	200	1.10E-07	2.71	1.85E-07	2.79	7.65E-09	4.86	1.84E-08	3.69
	50	3.85E-07		7.68E-07	_	3.08E-07	_	6.06E-07	
TD.	100	1.11E-07	1.79	2.10E-07	1.87	9.29E-08	1.73	1.76E-07	1.78
$\mathbb{P}_4$	150	5.07E - 08	1.93	9.53E-08	1.95	4.28E-08	1.91	8.06E-08	1.93
	200	2.88E-08	1.97	5.42E-08	1.96	2.44E-08	1.96	4.58E-08	1.96
	50	4.32E-07		8.31E-07	_	3.75E-07		7.09E-07	
$\mathbb{P}_4/\mathbb{P}_5$	100	1.14E-07	1.92	2.15E-07	1.95	9.76E - 08	1.94	1.83E-07	1.95
<b>1</b> 4/ <b>1</b> 5	150	5.14E-08	1.97	9.65E - 08	1.98	4.37E-08	1.98	8.21E-08	1.98
	200	2.90E-08	1.99	5.44E-08	1.99	2.47E-08	1.99	4.63E-08	1.99
	50	1.51E-09		2.16E-09	_	9.32E-10	_	1.46E-09	_
$\mathbb{P}_5$	100	3.58E-11	5.40	5.45E-11	5.31	2.95E-11	4.98	4.73E-11	4.94
п 5	150	5.37E-12	4.68	8.57E-12	4.56	3.40E-12	5.34	5.39E-12	5.36
	200	4.18E-12	0.87	7.61E-12	0.41	1.79E-12	2.22	3.01E-12	2.03
_	50	1.59E-09	_	2.43E-09		5.20E-10	_	8.44E-10	
$\mathbb{P}_5/\mathbb{P}_6$	100	2.90E-11	5.78	4.43E-11	5.77	1.65E-11	4.97	2.61E-11	5.01
и 5/ п 6	150	3.01E-12	5.59	4.50E-12	5.64	1.32E-12	6.24	2.14E-12	6.17
	200	1.59E-12	2.23	3.04E-12	1.36	5.35E-12	<u> </u>	9.87E-12	<u> </u>

Table 4: Test of  $01\_01$  with d and d+1 (exp(x) +  $\mathbb{P}_3$  – non-constant mesh).

			$\omega =$		$\omega = 1 3$				
	I	$E_1$	$\mathcal{O}_1$	$E_{\infty}$	$\mathcal{O}_{\infty}$	$E_1$	$\mathcal{O}_1$	$E_{\infty}$	$\mathcal{O}_{\infty}$
	50	1.14E-05	_	1.79E-05		7.04E-06		1.05E-05	_
TD.	100	1.30E-06	3.13	2.02E-06	3.15	6.72E-07	3.39	9.69E-07	3.44
$\mathbb{P}_3$	150	3.35E-07	3.35	5.18E-07	3.35	1.30E-07	4.05	2.12E-07	3.75
	200	1.18E-07	3.62	1.88E-07	3.53	2.65E-08	5.53	6.98E-08	3.85
	50	1.40E-06	_	2.30E-06		3.20E-07	_	8.76E-07	_
$\mathbb{P}_3/\mathbb{P}_4$	100	2.42E-07	2.53	4.06E-07	2.50	2.10E-07	0.61	4.63E-07	0.92
	150	6.95E-08	3.08	1.36E-07	2.70	1.28E-07	1.22	2.66E-07	1.37
	200	2.25E-08	3.91	6.02E-08	2.83	8.32E-08	1.49	1.68E-07	1.60
	50	7.17E-08		1.61E-07		7.74E-08		1.31E-07	
TD.	100	3.09E-08	1.22	6.13E-08	1.39	2.80E-08	1.46	5.46E-08	1.26
$\mathbb{P}_4$	150	1.64E-08	1.55	3.16E-08	1.64	1.44E-08	1.65	2.75E-08	1.70
	200	1.01E-08	1.68	1.96E-08	1.66	8.52E-09	1.82	1.61E-08	1.85
	50	9.44E-08	_	2.11E-07		1.04E-07	_	2.05E-07	
$\mathbb{P}_4/\mathbb{P}_5$	100	3.74E-08	1.34	7.21E-08	1.55	3.29E-08	1.66	6.27E - 08	1.71
<b>11</b> 4/ <b>11</b> 5	150	1.82E-08	1.77	3.44E-08	1.82	1.54E-08	1.87	2.92E-08	1.88
	200	1.02E-08	2.00	1.94E-08	1.98	8.86E-09	1.93	1.67E-08	1.94
	50	2.80E-09	_	4.63E-09		2.25E-09	_	3.76E-09	_
$\mathbb{P}_5$	100	1.17E-10	4.58	2.02E-10	4.52	1.07E-10	4.40	1.87E-10	4.33
<b>1</b> 5	150	1.87E-11	4.53	3.28E-11	4.48	1.90E-11	4.25	3.39E-11	4.20
	200	6.09E-12	3.89	1.08E-11	3.85	4.71E-12	4.85	8.46E-12	4.83
	50	5.59E-10		1.10E-09	_	2.00E-10		4.56E-10	
$\mathbb{P}_5/\mathbb{P}_6$	100	1.37E-11	5.35	2.55E-11	5.43	3.11E-11	2.69	6.57E-11	2.79
<b>п</b> 5/ <b>п</b> 6	150	5.58E-12	2.21	1.19E-11	1.88	7.36E-12	3.55	1.50E-11	3.64
	200	1.15E-12	5.49	2.30E-12	5.71	6.08E-12	0.66	1.17E-11	0.86

In this test we will consider:

- $\psi(x) = \sin(x)$
- $\psi_{l} = 0$ ;
- $\psi_{ll} = 1$ ;
- $\psi_{\rm r} = \sin(1)$ ;
- $\psi_{rr} = \cos(1)$ ;
- $g(x) = -\sin(x)$ .

Table 5: Test of  $01\_01$  with d and d+1 ( $\sin(x)$  – constant mesh).

			$\omega =$	: 1 1		$\omega = 1 3$			
	I	$E_1$	$\mathcal{O}_1$	$E_{\infty}$	$\mathcal{O}_{\infty}$	$E_1$	$\mathcal{O}_1$	$E_{\infty}$	$\mathcal{O}_{\infty}$
	50	2.73E-06		4.84E-06		2.30E-06		4.05E-06	_
TD.	100	3.57E-07	2.94	6.30E-07	2.94	3.03E-07	2.92	5.34E-07	2.92
$\mathbb{P}_3$	150	1.10E-07	2.91	1.93E-07	2.91	9.42E-08	2.89	1.65E-07	2.89
	200	4.80E-08	2.87	8.44E-08	2.88	4.15E-08	2.85	7.28E-08	2.86
	50	1.05E-06		2.41E-06	_	4.78E-07		8.80E-07	_
TD /TD	100	2.09E-07	2.33	4.35E-07	2.47	7.92E-08	2.59	1.42E-07	2.63
$\mathbb{P}_3/\mathbb{P}_4$	150	7.75E-08	2.44	1.53E-07	2.58	2.81E-08	2.55	5.01E-08	2.57
	200	3.76E-08	2.51	7.19E-08	2.62	1.37E-08	2.50	2.44E-08	2.50
	50	1.11E-07		2.30E-07		1.03E-07	_	2.05E-07	
TD.	100	3.12E-08	1.83	5.98E-08	1.94	2.71E-08	1.93	5.17E-08	1.99
$\mathbb{P}_4$	150	1.42E-08	1.94	2.70E-08	1.96	1.22E-08	1.97	2.31E-08	1.98
	200	8.08E-09	1.97	1.53E-08	1.97	6.92E-09	1.97	1.31E-08	1.98
	50	1.22E-07		2.40E-07		1.03E-07	_	2.00E-07	
$\mathbb{P}_4/\mathbb{P}_5$	100	3.21E-08	1.93	6.08E-08	1.98	2.73E-08	1.92	5.17E-08	1.95
<b>1</b> 4/ <b>1</b> 5	150	1.44E-08	1.97	2.73E-08	1.98	1.22E-08	1.97	2.31E-08	1.98
	200	8.14E-09	1.99	1.54E-08	1.99	6.86E-09	2.01	1.29E-08	2.02
	50	3.37E-10	_	5.16E-10	_	2.20E-10	_	3.75E-10	_
TD	100	6.59E-12	5.68	1.09E-11	5.56	6.92E-12	4.99	1.17E-11	5.01
$\mathbb{P}_5$	150	1.13E-12	4.35	1.90E-12	4.31	1.08E-12	4.59	1.90E-12	4.47
	200	6.04E-13	2.18	1.45E-12	0.94	4.82E-12	$\uparrow$	1.18E-11	$\uparrow$
_	50	4.06E-10	_	6.44E-10	_	1.46E-10	_	2.60E-10	
TD /TD	100	8.36E-12	5.60	1.39E-11	5.53	5.27E-12	4.79	9.29E-12	4.81
$\mathbb{P}_5/\mathbb{P}_6$	150	7.76E-13	5.86	1.23E-12	5.97	3.87E-13	6.44	7.53E-13	6.20
	200	2.47E-12	<u> </u>	4.43E-12	<b>↑</b>	5.13E-12	<u> </u>	9.48E-12	<u> </u>

Table 6: Test of  $01\_01$  with d and d+1 ( $\sin(x)$  – non-constant mesh).

			ω =	: 1 1	$\omega = 1 3$				
	I	$E_1$	$\mathcal{O}_1$	$E_{\infty}$	$\mathcal{O}_{\infty}$	$E_1$	$\mathcal{O}_1$	$E_{\infty}$	$\mathcal{O}_{\infty}$
	50	1.99E-06	_	3.18E-06	_	1.66E-06	_	2.69E-06	_
TD	100	2.87E-07	2.79	4.71E-07	2.75	2.57E-07	2.69	4.26E-07	2.66
$\mathbb{P}_3$	150	1.00E-07	2.59	1.68E-07	2.54	9.33E-08	2.50	1.58E-07	2.45
	200	4.93E-08	2.47	8.39E-08	2.41	4.69E-08	2.39	8.06E-08	2.34
	50	1.27E-06	_	2.25E-06	_	7.26E-07	_	1.28E-06	_
$\mathbb{P}_3/\mathbb{P}_4$	100	2.46E-07	2.37	4.21E-07	2.42	1.53E-07	2.25	2.76E-07	2.22
	150	9.37E-08	2.38	1.61E-07	2.38	6.35E - 08	2.16	1.16E-07	2.13
	200	4.78E-08	2.34	8.23E-08	2.32	3.45E-08	2.12	6.38E-08	2.09
	50	3.03E-07		6.50E-07	_	2.79E-07		5.61E-07	
TD	100	1.08E-07	1.48	2.08E-07	1.65	9.37E - 08	1.57	1.79E-07	1.65
$\mathbb{P}_4$	150	5.15E-08	1.83	9.74E-08	1.87	4.41E-08	1.86	8.33E-08	1.88
	200	2.99E-08	1.89	5.66E-08	1.88	2.54E-08	1.93	4.77E-08	1.94
	50	3.98E-07	_	7.89E-07	_	3.65E-07	_	7.00E-07	_
$\mathbb{P}_4/\mathbb{P}_5$	100	1.16E-07	1.77	2.20E-07	1.84	1.00E-07	1.87	1.89E-07	1.89
<b>11</b> 4/ <b>11</b> 5	150	5.35E-08	1.92	1.01E-07	1.93	4.55E-08	1.95	8.55E - 08	1.96
	200	3.02E-08	1.99	5.67E-08	1.99	2.58E-08	1.97	4.84E-08	1.98
	50	2.20E-10	_	3.18E-10	_	1.69E-10	_	2.60E-10	_
$\mathbb{P}_5$	100	3.96E-12	5.79	6.72E-12	5.57	4.98E-12	5.08	9.47E - 12	4.78
<b>1</b> 5	150	7.33E-13	4.16	1.72E-12	3.36	2.48E-12	1.72	4.76E-12	1.70
	200	5.79E-12	1	1.10E-11	<b>↑</b>	5.93E-12	1	1.29E-11	<u></u>
	50	1.49E-10		2.48E-10	_	7.00E-11		1.35E-10	
$\mathbb{P}_5/\mathbb{P}_6$	100	3.89E-12	5.26	7.28E-12	5.09	1.40E-12	5.65	3.62E-12	5.22
<u>п</u> 5/ п 6	150	1.78E-12	1.93	3.17E-12	2.05	2.82E-12	$\uparrow$	5.65E-12	$\uparrow$
	200	4.48E-12	<u> </u>	8.97E-12	<u> </u>	1.37E-11	<u></u>	2.69E-11	<u></u>

In this test we will consider:

• 
$$\psi(x) = x^4$$

• 
$$\psi_{l} = 0$$
;

• 
$$\psi_{ll}=0$$
;

• 
$$\psi_{\rm r} = 1$$
;

• 
$$\psi_{\rm rr}=4$$
;

• 
$$g(x) = -24$$
.

Table 7: Test of  $01\_01$  with d and d+1 ( $x^4$  – constant mesh).

		Table 7: Tes	st or u	L_UI WITH U	$(x^2 - \text{constant mesn}).$					
			$\omega =$	: 1 1		$\omega = 1 3$				
	I	$E_1$	$\mathcal{O}_1$	$E_{\infty}$	$\mathcal{O}_{\infty}$	$E_1$	$\mathcal{O}_1$	$E_{\infty}$	$\mathcal{O}_{\infty}$	
	50	1.47E-04		2.22E-04		1.08E-04		1.65E-04		
ID	100	1.86E-05	2.98	2.80E-05	2.99	1.36E-05	2.98	2.07E-05	2.99	
$\mathbb{P}_3$	150	5.54E-06	2.99	8.33E-06	2.99	4.06E-06	2.99	6.15E-06	3.00	
	200	2.34E-06	2.99	3.52E-06	3.00	1.72E-06	2.99	2.60E-06	3.00	
	50	4.90E-05		8.07E-05	_	2.34E-05	_	3.71E-05		
TD /TD	100	1.01E-05	2.28	1.59E-05	2.34	3.28E-06	2.84	5.05E-06	2.87	
$\mathbb{P}_3/\mathbb{P}_4$	150	3.68E-06	2.49	5.72E-06	2.53	1.01E-06	2.91	1.54E-06	2.93	
	200	1.74E-06	2.60	2.68E-06	2.63	4.33E-07	2.94	6.60E-07	2.95	
	50	2.53E-14		7.51E-14	_	9.54E-14		2.50E-13		
TD.	100	3.36E-13	$\uparrow$	8.20E-13	$\uparrow$	1.37E-11	$\uparrow$	2.54E-11	$\uparrow$	
$\mathbb{P}_4$	150	2.57E-12	$\uparrow$	5.02E-12	$\uparrow$	7.51E-12	1.49	1.85E-11	0.78	
	200	5.60E-12	$\uparrow$	1.16E-11	$\uparrow$	3.18E-10	$\uparrow$	6.12E-10	$\uparrow$	
	50	1.14E-13		2.18E-13		5.82E-13	_	1.25E-12		
TD /TD	100	2.60E-13	$\uparrow$	5.00E-13	$\uparrow$	1.54E-11	$\uparrow$	2.95E-11	$\uparrow$	
$\mathbb{P}_4/\mathbb{P}_5$	150	3.38E-12	$\uparrow$	7.08E-12	$\uparrow$	6.94E-11	$\uparrow$	1.34E-10	$\uparrow$	
	200	8.20E-12	$\uparrow$	1.42E-11	$\uparrow$	9.51E-11	$\uparrow$	2.00E-10	$\uparrow$	
	50	3.22E-13	_	5.87E-13	_	5.88E-13	_	1.13E-12	_	
$\mathbb{P}_5$	100	1.38E-12	$\uparrow$	2.58E-12	$\uparrow$	8.40E-12	$\uparrow$	1.55E-11	$\uparrow$	
<b>1</b> 5	150	2.86E-12	$\uparrow$	7.08E-12	$\uparrow$	8.22E-12	0.05	1.91E-11	$\uparrow$	
	200	9.51E-12	$\uparrow$	1.67E-11	$\uparrow$	2.18E-11	$\uparrow$	4.34E-11	$\uparrow$	
	50	4.29E-13		7.83E-13		4.75E-13		9.54E-13		
$\mathbb{P}_5/\mathbb{P}_6$	100	2.86E-13	0.59	5.58E-13	0.49	1.00E-12	$\uparrow$	2.38E-12	$\uparrow$	
п 5/ п 6	150	6.52E-12	$\uparrow$	1.34E-11	$\uparrow$	6.25E-12	$\uparrow$	1.42E-11	$\uparrow$	
	200	1.01E-11	1	2.54E-11	<b>↑</b>	8.59E-11	<b>↑</b>	1.62E-10	$\uparrow$	

Table 8: Test of  $01_{-}01$  with d and d+1 ( $x^4$  – non-constant mesh).

			$\omega =$	: 1 1	$\omega = 1 3$				
	I	$E_1$	$\mathcal{O}_1$	$E_{\infty}$	$\mathcal{O}_{\infty}$	$E_1$	$\mathcal{O}_1$	$E_{\infty}$	$\mathcal{O}_{\infty}$
	50	1.96E-04		3.38E-04		1.02E-04		1.73E-04	_
TD.	100	2.03E-05	3.27	3.66E-05	3.20	5.90E-06	4.11	1.52E-05	3.51
$\mathbb{P}_3$	150	4.32E-06	3.82	9.03E-06	3.45	1.85E-06	2.86	3.41E-06	3.69
	200	1.08E-06	4.83	3.20E-06	3.61	1.50E-06	0.73	3.21E-06	0.21
	50	2.59E-05	_	5.48E-05		2.66E-05	_	5.84E-05	_
$\mathbb{P}_3/\mathbb{P}_4$	100	5.02E-06	2.37	1.06E-05	2.37	1.02E-05	1.38	2.07E-05	1.50
	150	2.28E-06	1.95	4.82E-06	1.95	5.26E-06	1.64	1.04E-05	1.71
	200	1.38E-06	1.74	2.93E-06	1.74	3.19E-06	1.74	6.21E-06	1.79
	50	9.79E-14	_	1.86E-13		3.31E-13	_	6.33E-13	_
TD.	100	2.92E-13	$\uparrow$	5.95E-13	$\uparrow$	1.49E-12	$\uparrow$	2.86E-12	$\uparrow$
$\mathbb{P}_4$	150	6.92E-13	$\uparrow$	1.74E-12	$\uparrow$	6.43E-12	$\uparrow$	1.28E-11	$\uparrow$
	200	2.41E-12	$\uparrow$	5.94E-12	$\uparrow$	1.15E-11	$\uparrow$	2.73E-11	$\uparrow$
	50	2.23E-13	_	4.42E-13	_	5.35E-13		1.01E-12	
$\mathbb{P}_4/\mathbb{P}_5$	100	2.84E-13	$\uparrow$	5.32E-13	$\uparrow$	9.65E-13	$\uparrow$	2.16E-12	$\uparrow$
<b>1</b> 4/ 1 5	150	2.74E-12	$\uparrow$	5.22E-12	$\uparrow$	1.58E-12	$\uparrow$	3.40E-12	$\uparrow$
	200	2.92E-12	1	6.70E-12	1	3.81E-11	<b>↑</b>	7.19E-11	<u> </u>
	50	9.79E-14		1.57E-13	_	2.35E-13		4.91E-13	
$\mathbb{P}_5$	100	2.09E-12	$\uparrow$	4.13E-12	$\uparrow$	4.17E-12	$\uparrow$	8.43E-12	$\uparrow$
п 5	150	2.94E-12	$\uparrow$	5.22E-12	$\uparrow$	6.53E-12	$\uparrow$	1.34E-11	$\uparrow$
	200	1.15E-11	1	2.48E-11	1	2.09E-11	1	4.12E-11	<u> </u>
	50	2.46E-13		4.75E-13	_	1.79E-13		3.42E-13	_
$\mathbb{P}_5/\mathbb{P}_6$	100	2.47E-12	$\uparrow$	4.67E-12	$\uparrow$	2.24E-12	$\uparrow$	4.56E-12	$\uparrow$
и 5/ и 6	150	4.09E-13	4.44	8.24E-13	4.28	9.28E-12	$\uparrow$	1.83E-11	$\uparrow$
	200	6.53E-12	<u> </u>	1.52E-11	<u> </u>	3.62E-11	<b>↑</b>	6.77E-11	<u></u>