

Table 5.4. Errors obtained using the preconditioned gradient method (PG), the preconditioned conjugate gradient method (PCG), and the direct method implemented in the MATLAB command `\` for the solution of the Hilbert system. For the iterative methods also the number of iterations is reported

		\		PG		PCG	
n	$K(A_n)$	Error	Error	Iter	Error	Iter	
4	1.55e+04	7.72e-13	8.72e-03	995	1.12e-02	3	
6	1.50e+07	7.61e-10	3.60e-03	1813	3.88e-03	4	
8	1.53e+10	6.38e-07	6.30e-03	1089	7.53e-03	4	
10	1.60e+13	5.24e-04	7.98e-03	875	2.21e-03	5	
12	1.70e+16	6.27e-01	5.09e-03	1355	3.26e-03	5	
14	6.06e+17	4.12e+01	3.91e-03	1379	4.32e-03	5	