

Problem		Sparsity		Hessian computation ¹			
Name	Inputs	Zeros	Colors ²	AD (prepared)	ASD (prepared) ³	ASD (non-prep.) ³	
<i>3_lmbd</i>	24	91.15%	6	\$1.82 $\cdot 10^{\{-4\}}$	\$ $\cdot \mathbf{8.29}$ $\cdot 10^{\{-5\}}$	\$1.45 $\cdot 10^{\{-4\}}$	(1.3)
<i>60_c</i>	518	99.56%	12	\$1.15 $\cdot 10^{\{-1\}}$	\$ $\cdot \mathbf{2.36}$ $\cdot 10^{\{-3\}}$	\$8.61 $\cdot 10^{\{-3\}}$	(13.3)
<i>240_pserc</i>	2558	99.91%	16	\$3.51 $\cdot 10^{\{0\}}$	\$ $\cdot \mathbf{2.50}$ $\cdot 10^{\{-2\}}$	\$1.04 $\cdot 10^{\{-1\}}$	(33.6)
<i>1951_rte</i>	15018	99.98%	20	\$2.00 $\cdot 10^{\{2\}}$	\$ $\cdot \mathbf{1.54}$ $\cdot 10^{\{-1\}}$	\$1.00 $\cdot 10^{\{0\}}$	(199.1)
<i>2746wp_k</i>	19520	99.99%	14	\$3.53 $\cdot 10^{\{2\}}$	\$ $\cdot \mathbf{1.77}$ $\cdot 10^{\{-1\}}$	\$1.51 $\cdot 10^{\{0\}}$	(234.5)
<i>3375wp_k</i>	24350	99.99%	18	\$6.25 $\cdot 10^{\{2\}}$	\$ $\cdot \mathbf{2.54}$ $\cdot 10^{\{-1\}}$	\$1.71 $\cdot 10^{\{0\}}$	(365.1)

¹Wall time in seconds.

²Number of colors resulting from greedy column coloring.

³In parenthesis: Wall time ratio compared to prepared prepared AD (higher is better).