SOGA: Inference of Probabilistic Programs by Second-order Gaussian Approximation Reproducibility Report

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Table 6: Comparing ground truth and *SOGA* with varying pruning factors K, calculated using PSI. Rows display absolute percentage errors ($|\%e|$) for different K, with C denoting components without pruning.

		SOGA								
		$K{=}\infty$			$K{=}\lceil .015C \rceil$		$K{=}\lceil .00725C \rceil$		$K{=}\lceil .003625C \rceil$	
Model	*Ground Truth*	*time*	$\|\%e\|$	C	*time*	$\|\%e\|$	*time*	$\|\%e\|$	*time*	$\|\%e\|$
Bernoulli	0.250	6.84	2.76	1954	0.77	2.76	0.90	2.73	0.28	2.98
ClickGraph	0.614	to		4600	8.91	0.02	5.15	0.02	1.30	0.31
ClinicalTrial	0.755	20.37	0.21	5795	3.37	0.21	1.66	0.21	0.67	0.20
RadarQuery	6.333	5.64	5.99	2042	8.07	8.89	5.99	6.31	2.54	7.48
Coinbias	0.421	30.07	1.40	7687	4.84	1.40	3.61	1.40	0.89	1.40
Surveyunbias	0.625	25.37	0.77	6902	3.98	0.77	3.14	0.78	0.77	0.77