Finite-Sample Analysis: Random Polytrees (Fixed Version) Structure Recovery Performance **Error Convergence** -- n=10 (2H, 8O) -- n=10 (2H, 8O) 1.0  $10^{3}$ Structure Recovery Success Rate

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S Max Discrepancy Error 101 0.2  $10^{0}$ 0.0 10<sup>3</sup> 10<sup>5</sup> 10<sup>3</sup> 10<sup>5</sup> 10<sup>6</sup>  $10^{6}$ 10<sup>2</sup>  $10^{4}$  $10^{4}$  $10^{2}$ Sample Size Sample Size Observed vs Theoretical n^(-1/2) Convergence  $n^{-1/2}$  Efficiency Eff=3.68 n=10 (2H, 8O) Theory --- Perfect n=10 (2H, 8O) Observed 3.5  $10^{2}$ 3.0 Convergence Efficiency 5 5 5 Discrepancy Error 101 1.5 1.0  $10^{0}$ 10<sup>6</sup> 10<sup>3</sup> 10.4 10<sup>4</sup> 10<sup>5</sup> 9.6 9.8 10.0 10.2  $10^{2}$ Polytree Size Sample Size