## Data model $\mathcal{M}_{Uniform}$ $\tau \sim U(0,\, 0.5\, {\rm MGA}) \hspace{0.5cm} \tau \sim U(0,\, 1.0\, {\rm MGA}) \hspace{0.5cm} \tau \sim U(0,\, 1.5\, {\rm MGA}) \hspace{0.5cm} \tau \sim U(0,\, 2.0\, {\rm MGA}) \hspace{0.5cm} \tau \sim U(0,\, 2.5\, {\rm MGA}) \hspace{0.5cm} \tau \sim U(0,\, 5.0\, {\rm MGA})$ $p(|\hat{\tau}| = 1) = 1.0 \text{ B}$ $p(|\hat{\tau}| = 1) = 1.0 \text{ C}$ $p(|\hat{\tau}| = 1) = 0.999 \text{ D}$ $p(|\hat{\tau}| = 1) = 0.996$ E $p(|\hat{\tau}| = 1) = 0.995 \text{ F}$ 0.8 0.6 0.40.2 $p(|\hat{\tau}| = 1) = 0.849 \text{ K}$ $p(|\hat{\tau}| = 1) = 0.997 \text{ H}$ $p(|\hat{\tau}| = 1) = 0.981$ $p(|\tau| = 1) = 0.95$ J $p(|\hat{\tau}| = 1) = 0.717$ 0.8 0.6 0.40.2 0.80.6 0.40.2 $p(|\hat{\tau}| = 1) = 0.463 \text{ W}$ 0.8 0.6 0.40.2

Estimated number of divergence events,  $|\tau|$