## **Posterior Distributions - Validation Run** $\mu = 2.2685e + 04$ $\sigma = 5.4165e + 05$ ESS = 20 $\begin{array}{c} \mu = \text{-}1.1724e + 04 \\ \sigma = 1.7576e + 04 \\ \text{ESS} = 18 \end{array}$ Chain 1 0.200 Chain 2 2.00 Chain 3 Chain 4 0.175 Combined 1.75 - Mean 0.150 1.50 0.125 Density 1.00 Density 0.100 0.075 0.75 0.050 0.50Chain 1 Chain 2 (frozen) Chain 3 0.025 0.25 Chain 4 Combined - Mean 0.000 0.00 -0.50.0 0.5 1.0 -40000-30000 -20000-10000-1.01.5 $H_{\sigma}$ 1e6 $ho_{ m crit,\,NET}$ 1e9 1e-5Chain 1 $\begin{array}{c} \mu = \text{-}5.4410e + 05 \\ \sigma = 9.4003e + 05 \\ \text{ESS} = 18 \end{array}$ $\begin{array}{c} \mu = 1.0286e + 05 \\ \sigma = 2.3555e + 05 \\ ESS = 21 \end{array}$ Chain 1 --- Chain 2 (frozen) Chain 2 — Chain 4 Chain 3 (frozen) 2.0 Combined — Chain 4 **— -** Mean Combined 8 - Mean 1.5 6 Density 0.1 Density 0.5 2 0.0 0 -2.0-1.5-1.0-0.50.0 -400000 -2000000 200000 400000 600000 800000 1e6 $M_{\text{seed}}$ $a_{\mathsf{min}}$ $\begin{array}{c} \mu = 3.5508\text{e} + 05 \\ \sigma = 5.6750\text{e} + 05 \\ \text{ESS} = 18 \end{array}$ $\mu = -2957.01$ $\sigma = 2866.99$ Chain 1 Chain 2 Chain 3 0.00175Chain 4 5 **— -** Mean 0.00150 4 0.00125 — Chain 1 Density $_{\omega}$ — Chain 2 Density - Chain 3 0.00100 - Chain 4 Combined - Mean 0.000752 0.00050 1 0.000250 0.00000 0.0 0.5 -8000 -6000 -4000-2000 1.0 1.5 -100001e6 $f_{\mathsf{NET}}$ $\log p(\theta|D)$