Multi-Perturbation Common Eigenfunctions phi (λ=0.984) $dr (\lambda = 0.984)$ $vr(\lambda = 0.984)$ $vm (\lambda = 0.984)$ dm (λ =0.984) 0.150 0.175 Basis 1 (Closed) 0.14 -Basis 2 (Palindromic) 0.25 Basis 2 (Palindromic) Basis 2 (Palindromic) Basis 2 (Palindromic) Basis 2 (Palindromic) 0.30 0.125 0.150 0.12 0.125 0.100 0.25 0.20 0.10 0.100 0.20 0.075 0.08 0.15 0.075 0.15 0.050 0.06 0.050 0.10 0.04 0.10 0.025 0.025 0.02 0.05 0.05 0.000 0.000 0.00 -0.00 -0.025 0.00 -0.025 phi ($\lambda = 0.936$) $dr (\lambda = 0.936)$ dm (λ =0.936) $vr(\lambda = 0.936)$ $vm (\lambda = 0.936)$ 0.2 0.5 0.25 0.15 0.1 0.1 0.4 0.20 0.10 0.0 0.3 0.0 0.15 0.2 -0.10.05 0.10 -0.10.1 -0.20.05 0.00 0.0 -0.3-0.20.00 -0.1-0.4-0.05-0.3-0.2-0.05-0.5-0.10-0.3 -0.10-0.6-0.4 $dr (\lambda = 0.825)$ $vr (\lambda = 0.825)$ phi (λ=0.825) dm (λ =0.825) $vm (\lambda = 0.825)$ 0.5 0.100 0.15 0.3 0.075 0.10 0.2 0.4 0.2 0.050 0.05 0.1 0.3 0.1 0.025 0.00 0.0 0.000 -0.050.2 -0.10.0 -0.025-0.10-0.20.1 -0.050-0.15-0.1-0.3-0.075 -0.20 0.0 -0.4-0.100 3 Conformal Time η Conformal Time η Conformal Time $\boldsymbol{\eta}$ Conformal Time η Conformal Time $\boldsymbol{\eta}$