$Z_m(\mu = 2.000 \text{ GeV})$ $Z_m(am_q) = k_1 + k_2 am_q \log(am_q) + k_3 (am_q)^2$ **C**1 F₁M 4.8 fit *p*-value:0.29 fit *p*-value:0.01 $--am_q^* (M_{\eta_c}^* = 2.4 \text{ GeV})$ $---am_q^* (M_{\eta_c}^* = 2.4 \text{ GeV})$ 5.4 -3.4 - $---am_q^* (M_{\eta_c}^* = 2.6 \text{ GeV})$ $---am_q^* (M_{\eta_c}^* = 2.6 \text{ GeV})$ $---am_q^*(M_{\eta_c}^*=PDG)$ $---am_q^*(M_{\eta_c}^* = PDG)$ 4.6 $\mathbf{\underline{\bullet}}$ simulated am_q simulated am_q 5.2 -3.3 -5.0 -4.4 4.8 3.1 4.2 4.6 fit *p*-value:0.70 3.0 - $---am_q^* (M_{\eta_c}^* = 2.4 \text{ GeV})$ 4.0 $---am_q^* (M_{\eta_c}^* = 2.6 \text{ GeV})$ $---am_q^*(M_{\eta_c}^* = PDG)$ 4.4 simulated am_q 2.9 -0.40 0.50 0.20 0.40 0.45 0.40 0.45 0.20 0.25 0.30 0.35 0.45 0.15 0.25 0.30 0.35 0.10 0.15 0.20 0.25 0.30 0.35 am_q