$Z_m(\mu = 2.000 \text{ GeV})$ $Z_m(am_q) = k_1 + k_2 am_q \log(am_q) + k_3 (am_q)^2$ **C**1 F1M 7.0 fit p-value:0.56 fit *p*-value:0.06 fit *p*-value:0.00 $---am_q^* (M_{\eta_c}^* = 2.4 \text{ GeV})$ $--am_q^* (M_{\eta_c}^* = 2.4 \text{ GeV})$ - + - $am_q^* (M_{\eta_c}^* = 2.4 \text{ GeV})$ 12 -10 - $---am_q^* (M_{\eta_c}^* = 2.6 \text{ GeV})$ $---am_q^* (M_{\eta_c}^* = 2.6 \text{ GeV})$ $---am_q^* (M_{\eta_c}^* = 2.6 \text{ GeV})$ $---am_q^* (M_{\eta_c}^* = PDG)$ $--am_q^*(M_{\eta_c}^* = PDG)$ $- - am_q^* (M_{\eta_c}^* = PDG)$ 6.5 - \bullet simulated am_q simulated am_q simulated am_q 9 -10 8 -6.0 -8 5.5 -6 -5.0 -6 -

0.2

 am_q

0.3

0.1

0.0

3 -

0.0

0.1

0.2

0.3

0.4

0.5

4.5 -

0.0

0.1

0.4

0.2

 am_q

0.3

0.4