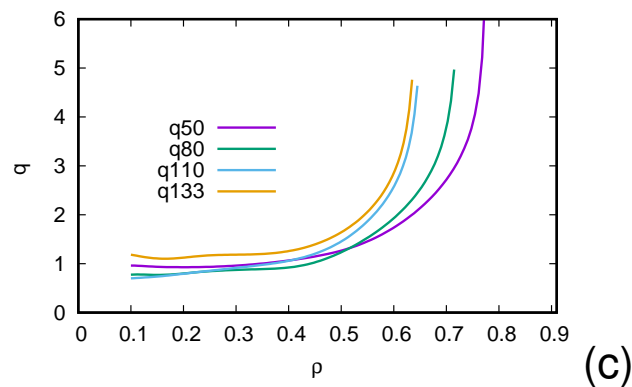
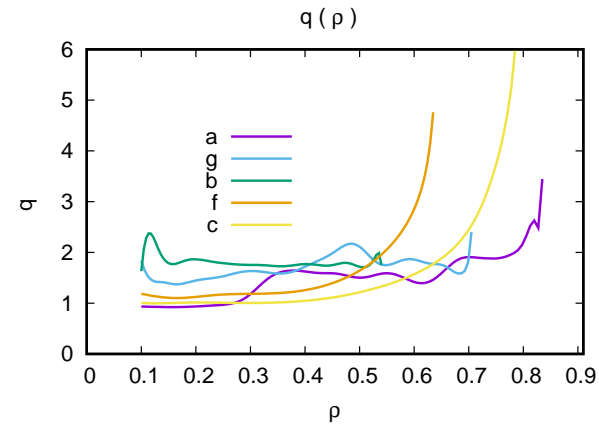
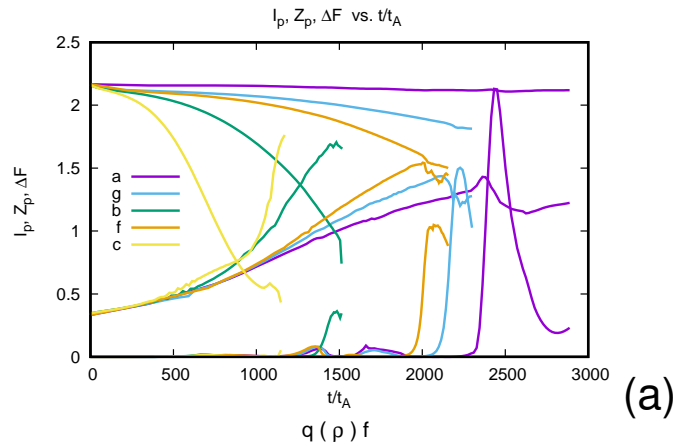


Dependence of q on τ_{CQ}/τ_{vde}

H. Strauss, 6-1-20



(a) Time history of current I , vertical displacement Z , and asymmetric wall force F_{wall} . (b) q value in cases in Fig. (a), after sideways force peaks. The q value relaxes to $q = 1, 2, 3/2$, indicating the presence of $(m, n) = (1, 1), (2, 1), (3, 2)$ modes. (c) Time evolution of the q profile for case "f" in Figs. (a),(b).

The evolution of the q profile depends on the evolution of Z . For cases a, g, f in Fig.(a) the VDE saturates at $Z \approx 1.5$, without reaching the wall, while cases b, c reach the wall at $Z \approx 1.7$. For the former cases, $q \approx 1$, while in the latter cases, $q \approx 2$ or $q \approx 3/2$. The latter cases have $\tau_{CQ} > \tau_{vde}$.