



Figure 11:  $\frac{\Gamma k_B T}{D_{\text{eff}}}$  versus the dimensionless ratio  $k_c R_2^2 / D_1$ , for a chucker with  $R_1 / R_2 = 10$ .  $D_{\text{eff}}$  is measured from the mean square displacement of a freely diffusing chucker (Figure 5) whereas  $\Gamma$  is obtained by dragging the chucker with an external force of  $F = 3.0 k_B T / R_1$  or  $F = 7.0 k_B T / R_1$  (Figure 10). The dashed line indicates the FDT prediction for a passive system.