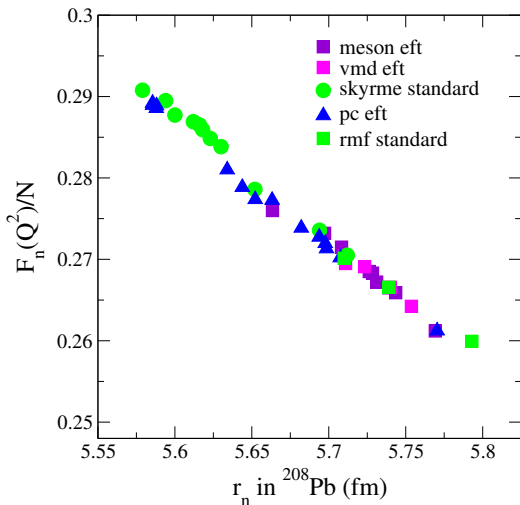


# Form Factor at Low $Q^2$ vs. Neutron Radius in Pb

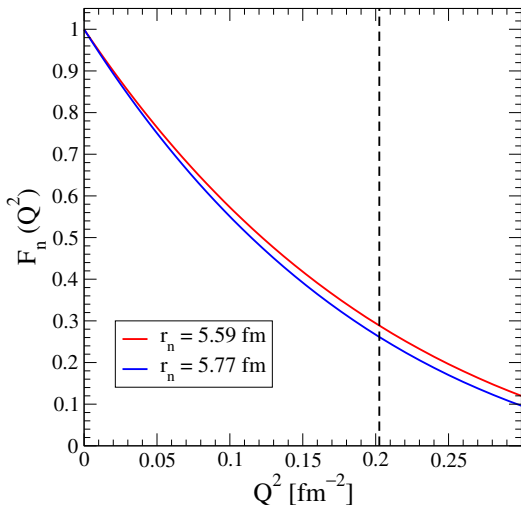


- How are the low momentum form factor and  $r_n$  correlated?

- Form factor:  $F_n(Q^2) = \int d^3r \rho_n(r) j_0(qr)$

- Here:  $q \equiv (Q^2)^{1/2} = 0.45 \text{ fm}^{-1}$

## $^{208}\text{Pb}$ Neutron Form Factor at Low $Q^2$



- Neutron form factor for two point coupling models

- Form factor:  $F_n(Q^2) = \int d^3r \rho_n(r) j_0(qr)$

- Here:  $Q^2 = 0.202 \text{ fm}^{-2}$