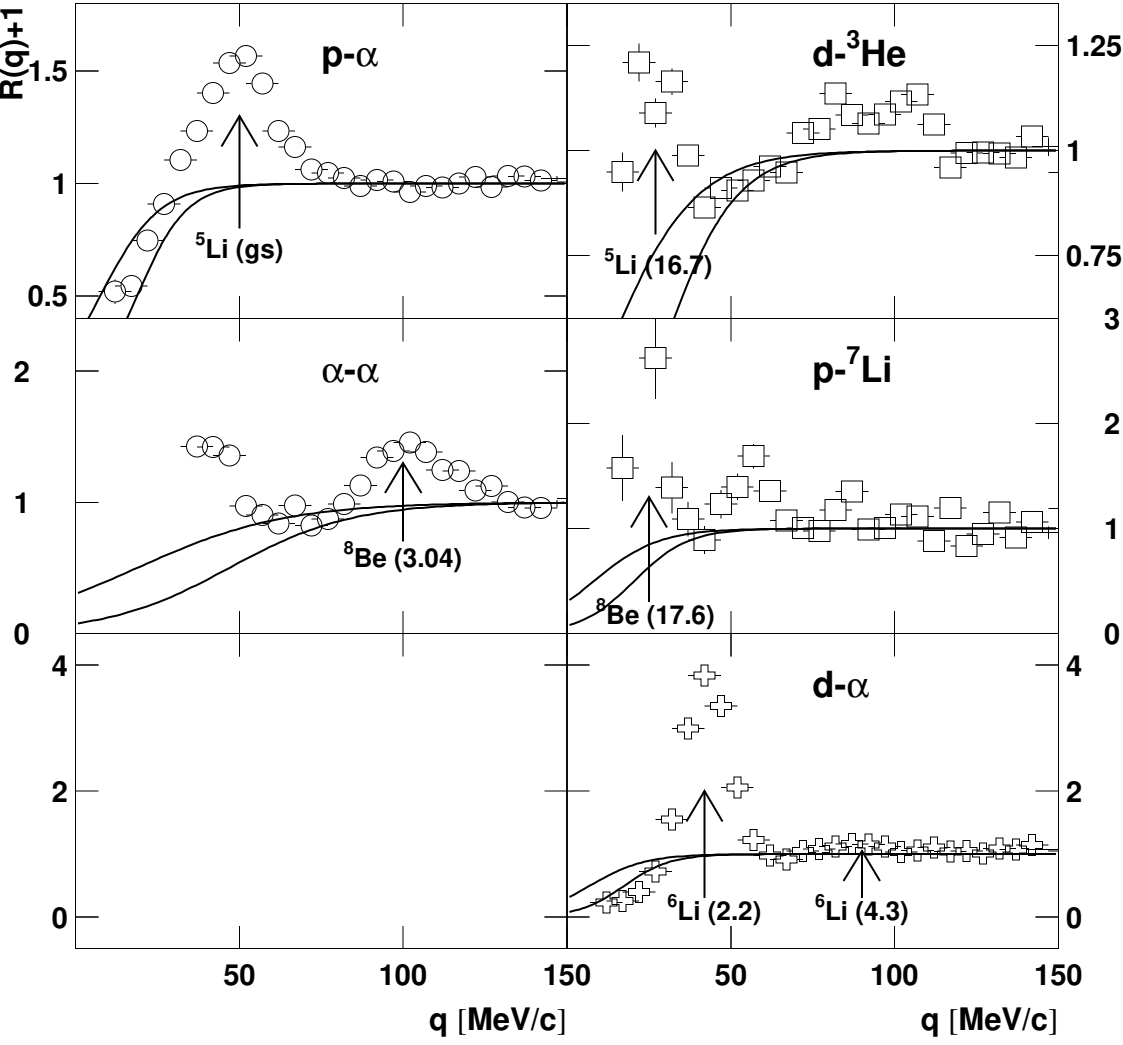1GeV excited state correlation functions