

# Physics with neutrons (PH2053)

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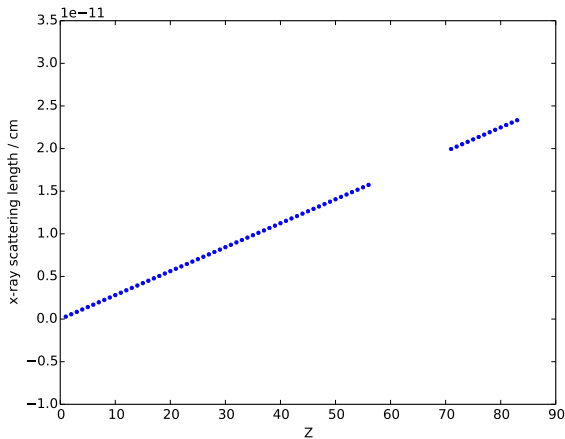
German Engineering Materials Science Centre (GEMS)  
at Heinz Maier-Leibnitz Zentrum (MLZ)  
Helmholtz-Zentrum Geesthacht  
Garching bei München, Germany

Lecture 03

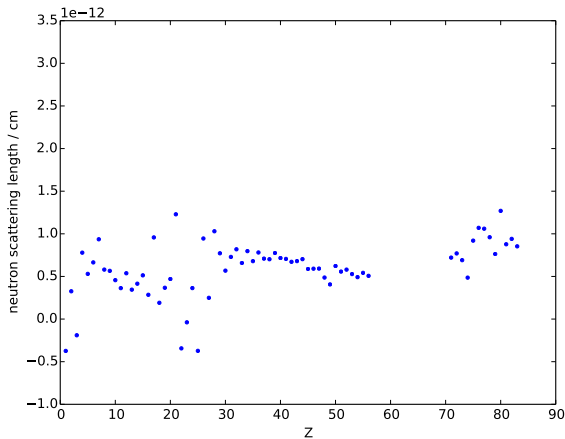
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MLZ is a cooperation between

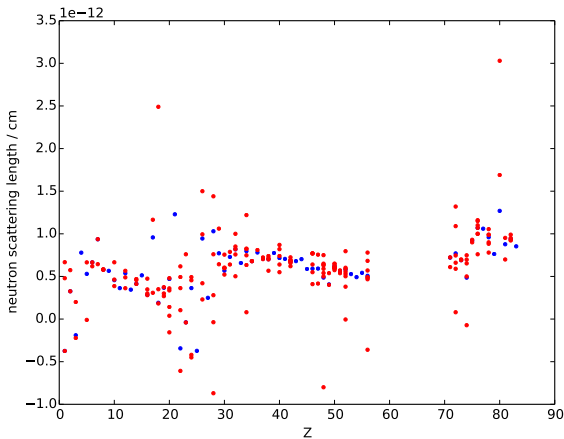
## X-ray coherent scattering lengths



## Neutron coherent scattering lengths, natural abundance



## Neutron coherent scattering lengths, isotope effect



## X-ray atomic form factor

