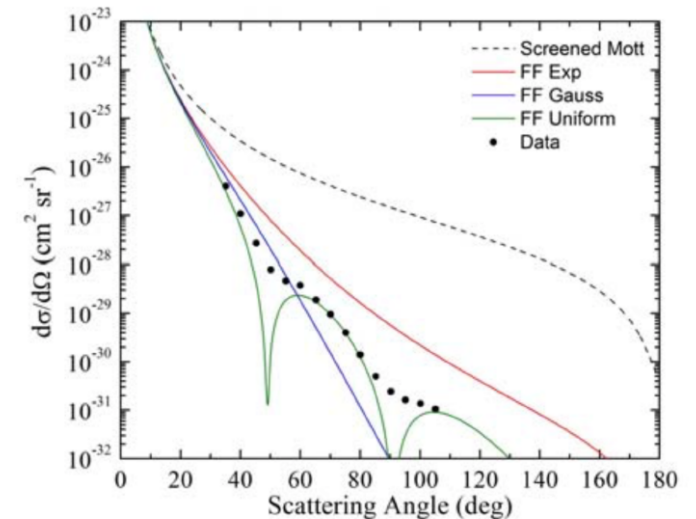


## Warm-up question 1

The diagram shows differential cross sections for the scattering of electrons in Indium. It compares measured data to calculations with different assumptions. Which of these statements are correct?

- A) The total cross section for the *Screened Mott* calculation is higher than for *FF Uniform*.
- B) In the measurement they could have increased  $d\sigma/d\Omega$  by measuring longer.
- C) The probability for an incoming electron to scatter was measured higher than predicted with the *FF Exp* assumption

Scattering of  $e^-$  (183 MeV) in Indium



[ A Bagulya *et al* 2017 *J. Phys.: Conf. Ser.* **898** 042032 ]

## Warm-up question 2

CMS = center-of-mass system

Which statements about the center-of-mass are correct?

- A) It is impossible to boost into the center of mass of a single photon
- B) The invariant mass of two particles is the highest in the CMS.
- C) The total momentum  $\vec{p}_{CMS} = \vec{p}_1 + \vec{p}_2 + \dots$  in the CMS is always zero.
- D) The position of the center of mass is fixed in all frames of reference.