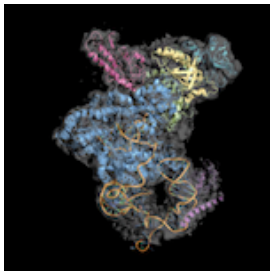

Contribution ID : **19** Type : **not specified**

Short Talk 7 - Seeing hydrogen with neutron crystallography

Tuesday, 20 November 2018 15:00 (20)

Hydrogens play a key role in many biochemical processes, but generally they are invisible by X-ray crystallography. Neutrons are scattered by the atomic nuclei, which makes neutron crystallography a general method for determining hydrogen positions. The low brilliance of the available neutron sources leads to some experimental challenges: very large crystals are needed and the incoherent scattering from 1H produces high background. The low flux can be mitigated by using polychromatic Laue diffraction, which leads to more complex data processing. Pulsed neutron sources allow resolving the wavelength using the neutron time-of-flight.

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