THE PHYSICS COLLOQUIUM

Wednesday 6 December, 4:00 p.m.
Nijenborgh 4, 5111.0080

Nuclear radii: why to care and how to measure

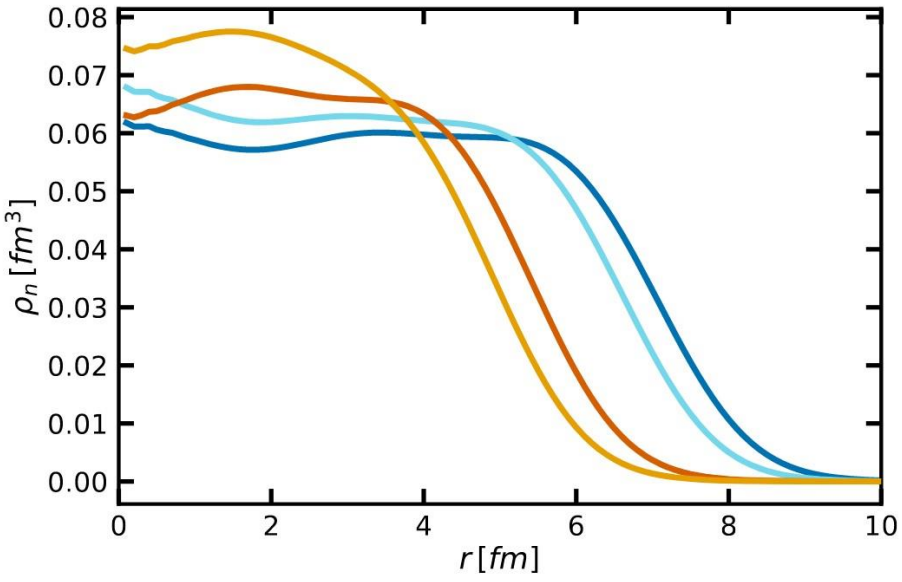
Natalia Oreshkina

Max Planck Institute for Nuclear Physics, Heidelberg, Germany

In my lecture, I will concentrate on the main limiting factor for many high-precision experiment, namely, the nuclear radii.

We will overview the current method, their advantages ans disadvantages. Also, I'll introduce highly charged ions and muonic atoms with their special properties. I will present the main limitations of theoretical predictions and discuss whether and how they can be overcome.

Finally, I will show how their structure can provide access to other nuclear parameters, to the fundamental constants, and even to the new physics beyond the Standard Model.



Join us for coffee starting 3:30 p.m. Refreshments will be served after the lecture.
For more information contact the host: Anastasia Borschevsky (a.borschevsky@rug.nl)
Website: http://www.rug.nl/research/vsi/colloquia/