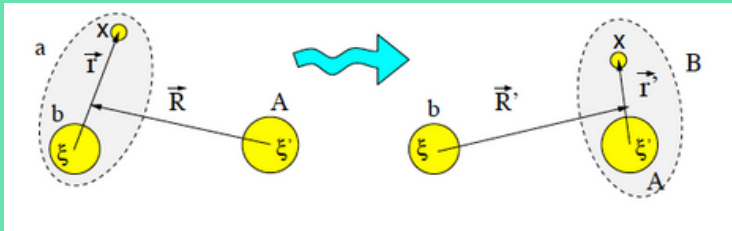


“Minicourse on applications of nuclear reactions calculations”

Speaker

ANTONIO MATIAS MORO MUÑOZ

University of Seville



May 3 11:00 am - 1:00 pm

May 7 4:00 pm - 6:00 pm

May 14 11:00 am - 1:00 pm

Zoom Meeting link

<https://unipd.zoom.us/j/3922304545>

Meeting ID:392 230 4545

In this series of seminars I will present some basic applications of classical and quantum scattering theory to three main types of nuclear reactions, namely, elastic scattering, inelastic scattering and transfer. For each type of reaction, a specific illustrative reaction will be considered for the calculations. Numerical calculations will be presented for that reaction with the aid of the the online toolkit “Nuclear Reaction Video Project” (<http://nrv.jinr.ru/nrv/>), which allows to run standard calculations (optical model, DWBA inelastic, DWBA transfer...) with minimal installation requirements by the user.

Note: The course will make extensive use of the NRV platform so the attendants are encourage to test the performance of this tool in his/her computers. Most tools require JAVA support which can be troublesome for some recent browsers, since Java support is being discontinued by some browsers. For Linux and Windows users, the NRV platform provides specially designed browsers which are well adapted for Java support.

Recommended bibliography • Nuclear Reaction Video Project (<http://nrv.jinr.ru/nrv/>) • Introduction to nuclear reactions, G. R. Satchler, MacMillan (1990) • Nuclear reactions for astrophysics : principles, calculation and applications of low-energy reaction, Ian J. Thompson and Filomena M. Nunes, Cambridge University Press, cop. 2009 • Direct nuclear reactions, Norman K. Glendenning, Academic Press 1983