BINDING BLOCKS : BUILDING THE UNIVERSE ONE NUCLEUS AT THE TIME

A. Pastore ,C. A. Diget, K. Leech, T. Sanders, M. Shelley, S. Lock, J. Keegans, T. Haylett, L. Sinclair

Department of Physics, University of York, Heslington, York, YO10 5DD, UK

Binding Blocks is a nuclear physics outreach project. It aims to get members of the public and schools to build an eight metre long 3D nuclear chart of all isotopes made completely out of LEGO.

Students from the University of York's Physics Department teamed up with a group of full- time academics and staff to bring the project to life. It is currently being presented at public events and will start being brought into schools in the 2016/17 academic year. The novelty of the project compared to other existing one is the interactive part : the school kids build the chart at each event together with trained Undergraduate students and lecturer. The close contact helps in overcoming the barrier between A-level students and University students, but also allows us to present different aspect of nuclear science :

— Nuclear fusion
— Nuclear fission
— Nuclear astrophysics
— Nuclear physics in medicine
— Exotic nuclei

For large evenets, these themes are present to the audience trough short seminars. We aim at collecting all the material we are currently producing to create a series of small and funny lectures for A-level teachers. During the poster session, I will explain how this material can be used also by other nuclear physics groups for their own outreach activities.

The project gained funding from The Science and Technology Facilities Council (STFC) and the University of York in 2016.

Official Project Web Page :
http ://www.york.ac.uk/physics/public-and-schools/schools/secondary/binding-blocks/