

Workshop

"Advanced ideas and experiments for the new Dubna Neutron Source (DNS-IV). Related moderators and infrastructure."

Dear friends!

Frank Laboratory of Neutron Physics, Joint Institute for Nuclear Research, is organizing a workshop in Dubna (Moscow reg., Russia) on the new Dubna Neutron Source (DNS-IV). We would like to hold a comprehensive discussion of new promising physical ideas concerning the source and its infrastructure including advanced moderators and special resources required for the project implementation. If you or your colleagues are interested and would like to take part in the workshop and make a presentation, please, inform us about your intention and the presentation title before September 1. FLNP will cover all the local expenses; the possibility of covering travel expenses will be considered individually at request.

Aims of the workshop are:

- to generate new advanced ideas for DNS-IV;
- to establish requirements for the source infrastructure (location of moderators, position and size of neutron channels, etc.).

DNS-IV is a proton accelerator-driven source and a multiplying target station. Further information on the possible DNS-IV configuration can be found at the website

http://flnph.jinr.ru/images/content/Books/Booklet_Neptun_1.pdf

Parameters of DNS:

Average density of thermal neutron flux	$(0.5 \div 1.5) 10^{14} \text{ n cm}^{-2} \text{ s}^{-1}$
Peak density of thermal neutron flux	$(4 \div 9) \cdot 10^{16} \text{ n cm}^{-2} \text{ s}^{-1}$
Half-width of fast / thermal neutron pulse	20-30 or about 200 μs
Pulse repetition rate	10 \div 30 Hz
Background power (percentage of the average)	3.2%

The workshop will run for 2 days.

Provisional dates of the workshop:

- December 6-8

Contact persons:

Egor Lychagin

lychag@nf.jinr.ru

Dorota Chudoba

scientific_secretary@nf.jinr.ru