

Nuclear physics experiments at the new Dubna Neutron Source

Experiments which require high neutron energy resolution should be performed at dedicated high-res neutron facilities, e.g. IREN, RADEX, Gelina, n-TOF etc.

Neutron source with the pulse width in the range of $\sim 10\div 100$ nks can be suitable for a number of experiments aimed at precise measurements of effects in low lying neutron resonances, which require high neutron intensity.

Examples of such experiments:

- Measurements of known and search for new **T-odd effects** in fission of heavy actinides in resonances.
- Measurements of **P-violating effects** in the region of low-lying resonances
- Precise measurements of **(spin-separated) cross sections** at low-lying resonances
- Measurement of the **n-n scattering cross section** (requires high peak neutron intensity)

