## FIP/P7-41 Spherical Tokamak Globus-M2: Design, Integration, Construction

- The increase of the magnetic field up to 1.0 T together with the plasma current up to 0.5 MA will result in the significant enhancement of the operating parameters in the Globus-M2 machine. The electron temperature exceeds value of 1.5 keV in the plasma core. We expect at least two orders of increase in neutron flux as compared with Globus-M.
- The experimental program will be focused on plasma heating and non-inductive current drive and will serve creation of physical and technological base for the compact fusion neutron source development.



Preliminary layout of the auxiliary heating systems and main diagnostics.

## First plasma in the Globus-M2 tokamak is expected in 2017.



Globus-M2 toroidal magnetic field coil assembly together with central solenoid and supporting structure in the machine hall (Ioffe Institute, St. Petersburg, Russia).

- ✓ Magnets for the Globus-M2 tokamak had been manufactured by the end of 2015. The map of the magnetic field generated by the central solenoid has been recorded in a special test experiment.
- ✓ An upgrade of the tokamak AC and DC power supplies is going on. Novel thyristor rectifiers have been tested during the last Globus-M experimental campaign.