

LABORATORY VISIT

On Thursday afternoon (June 19th) **three visiting tours** to the [Forschungszentrum Karlsruhe](#) will be organized. Forschungszentrum Karlsruhe is one of the biggest science and engineering research institutions in Europe and funded jointly by the Federal Republic of Germany and the State of Baden-Wuerttemberg. Its research and development program is embedded in the superordinate program structure of the Hermann von Helmholtz Association of National Research Centers and concentrates on the five research areas of Structure of Matter, Earth and Environment, Health, Energy, and Key Technologies.

Within groups of up to 25 participants you will be guided through 4 different laboratories where you will have the possibility to see experiments related to pulsed power and plasma science. At the end of the tour there will be a short come together where some drinks and snacks will be served.

You will be picked up by bus in front of the conference centre at 14 o'clock and the way back will start at about 18:30 o'clock.

If you intend to participate you should indicate your interest in the registration form. This event is free of charge and will be limited to 300 participants.

You may choose one of the following tours at the registration desk.

Tour A:

[GESA](#) experiment for surface modification of materials by pulsed electron beams.

The Karlsruhe Microwave Plasma Process ([KMP Process](#)) for the production of nanoparticles with very narrow particle size distribution.

The Karlsruhe Tritium Laboratory ([TLK](#)) which develops key technologies for the deuterium / tritium fuel cycle of future fusion reactors.

The [KATRIN](#) experiment is designed to measure the mass of the electron neutrino directly with a sensitivity of 0.2 eV.

Tour B:

[FRANKA](#) facilities for fragmentation and separation of compound materials and minerals with pulsed electric discharges. [KEA](#) experiments for a big scale utilization of pulsed power for electroporation.

Test facility for magnets ([TOSKA](#)) used in fusion reactors for magnetic confinement.

[Gyrotron](#) laboratory for the development of high power microwave source for plasma heating in fusion reactor.

The Synchrotron Light Source [ANKA](#).

Tour C:

VERENA is an installation to convert biomass from agriculture and food industry into a hydrogen-rich product gas.

[FR2](#) is the first genuine German nuclear research reactor which is located on the premises of the Research Center Karlsruhe. It was built from 1957 to 1960 and went critical for the first time in March 1961. The FR2 was finally shut down in December 1981.

[MEKKA](#) aims to investigate liquid metal flows relevant for fusion applications, where the magnetic field that confines the plasma is very strong.

[BETINA](#) is a research project on alloying of Beryllium and Titan nanopowders.