

In this lecture, I will discuss the unusual but truly fascinating regime of NMR, where the experiment is carried out at such a low magnetic field that the interactions that are usually the weakest in the hierarchy of interactions in high-field NMR become the dominant ones. Such experiments require unusual NMR instrumentation (such as efficient magnetic shielding rather than strong magnets) and allow one to do things that are difficult to do otherwise. This includes measuring interactions normally truncated in a high field and imaging things inside metal.

This lecture will be based on the work of our group and numerous collaborators described in publications (including review and tutorial papers) that can be found at:

<https://budker.uni-mainz.de/> and <http://budker.berkeley.edu/>.