

# IGSN - SYMPOSIUM

Monday, June 19<sup>th</sup> 2023 • 15.00 (3 pm)

FNO – 01 / 117

## Towards magnetic nanoparticle-assisted brain repair

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### **Superparamagnetic Nanoparticles: how to guide them by magnetic fields and predict their velocity**

The principles and concepts of using magnetic fields for moving or even guiding superparamagnetic nano-particles (SPP) or macroscopic ferromagnetic objects on arbitrary trajectories is presented. The underlying physics, the arising problems of bijective motion over larger volumes, solutions as well as limitations will be discussed. Finally also the conversion of forces to real motion (velocities) will be part of this lecture.

Review:

P. Blümmler, Cells 10 (2021) 2708 doi: 10.3390/cells10102708

**Host:**

**ROLF HEUMANN**

Molecular Neurobiochemistry, Faculty of Chemistry and Biochemistry, Ruhr University Bochum

