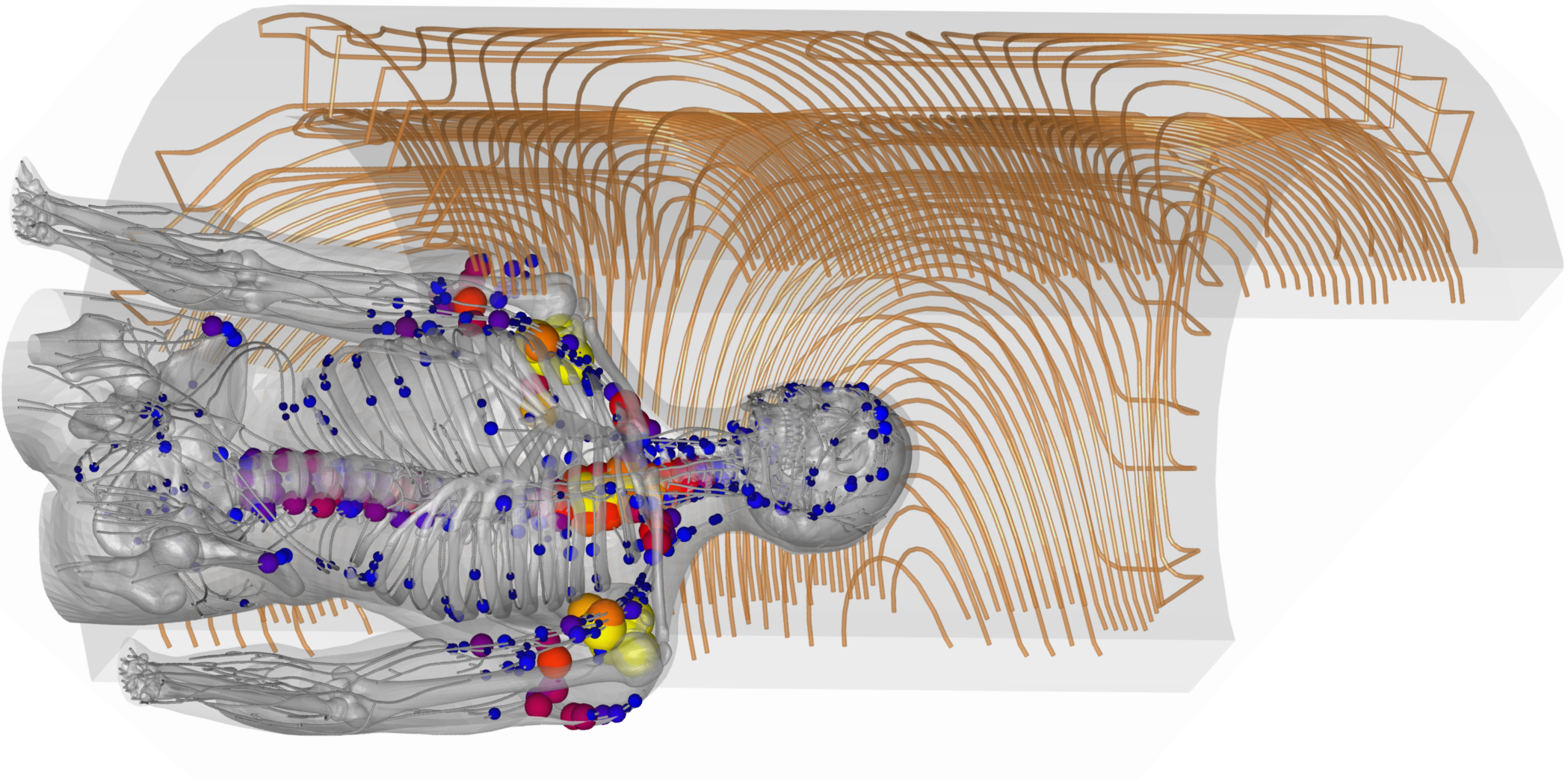

BME PARIS
BioMedical Engineering
MASTER'S PROGRAM

Better tools to map the brain

Open Your Mind Seminar

Friday, Oct 11 2019
1 pm – 2.30 pm

ENSAM
155 Boulevard de l'Hopital
75013 Paris
Bézier Amphitheater

Advances in MRI technology and neuroimaging

Despite great advances in neuroimaging technology in these past 20 years, the true complexity of the brain' organization is still far out of the reach of even our most powerful tools. Two especially challenging goals are 1) whole-brain, in-vivo mapping of cognitive processes at high spatial and temporal resolutions and 2) establishing causal relations between distant brain regions. I am a computational scientist who focuses on the development of technology to achieve those goals, and since none of those are achievable by a single person I collaborate heavily with engineers, physicists, medical doctors and neuroscientists. In MRI technology, I develop new approaches to create uniform and tailored excitations of the MRI signal that are robust at ultra-high field. I also have an interest in MRI gradient coil design and will touch briefly on recent advances by myself and collaborators to significantly increase the switching rate of MRI encoding gradients, thus improving the image quality of many sequences/protocols.

Bastien GUERIN
Assistant Professor in Radiology
Harvard Medical School, Boston

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