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During my PhD in Paris under the supervision of Sylvain Gigan and Emmanuel Bossy, I have been working on the combination of optical wavefront shaping and photoacoustic imaging, trying to push further the penetration limit of optical resolution imaging. I then shifted to biology with Benjamin Judkewitz in Berlin, where I investigated the mechanisms of directional hearing in a tiny transparent singing fish. Since January 2019, I am working in the Fresnel Institute in Marseille to develop non-invasive techniques for high resolution deep tissue imaging.

S1-L3 ‘*Photoacoustic imaging in neurobiology.*’

Combining optical excitation and ultrasonic detection, photoacoustic imaging has emerged in the last two decades as a very powerful technique to provide high resolution images of optically contrasted objects beyond the ballistic regime. After presenting the basic principles of this modality, I will focus on current applications in neurobiology and discuss the technological key points that remain to be addressed.
