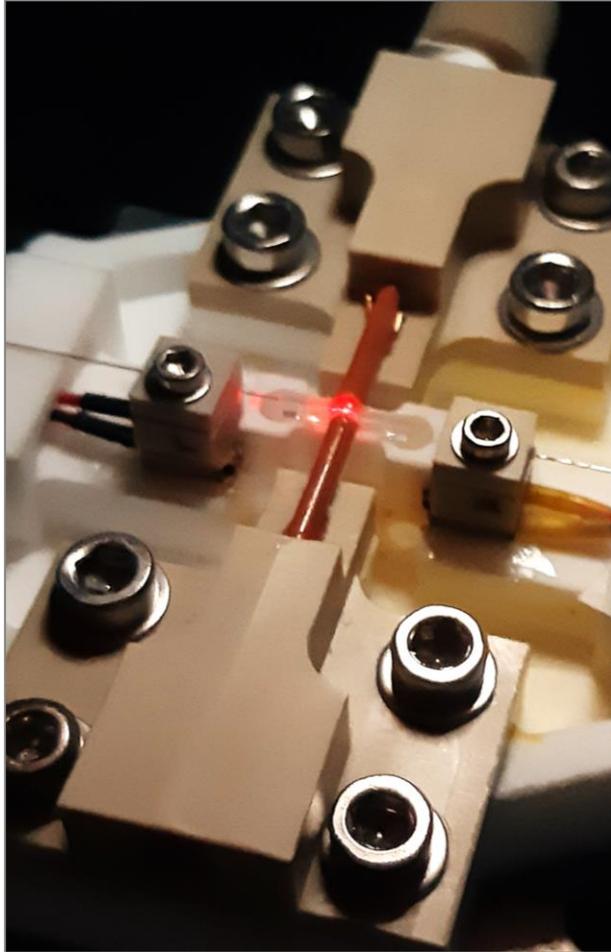


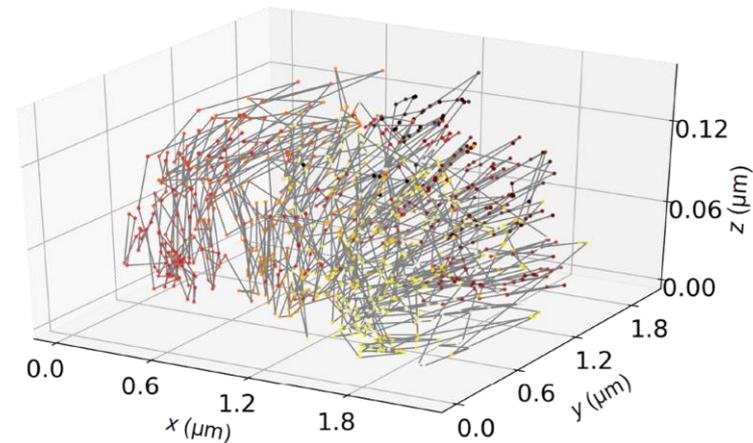
# Cavity-enhanced Nanosensing

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We build fibre microcavities to characterise nanoparticles in aqueous suspensions.

- Detect and determine size, refractive index of nanoparticles, potentially also shape
- Track Brownian motion of nanoparticles in 3D
- Investigate fast rotation dynamics
- Look at folding behaviour of biomolecules (“DNA origami”)



# Cavity-enhanced Nanosensing

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## M.Sc. Project: Towards optofluidic lasing

- Investigate cavity-enhanced fluorescence in fibre microcavities.
- Lasing by a lanthanide-doped inorganic-organic-hybrid nanoparticle suspension in the microfluidic system.
- Long term aim: monitor lanthanide uptake by bacteria using optofluidic laser threshold

