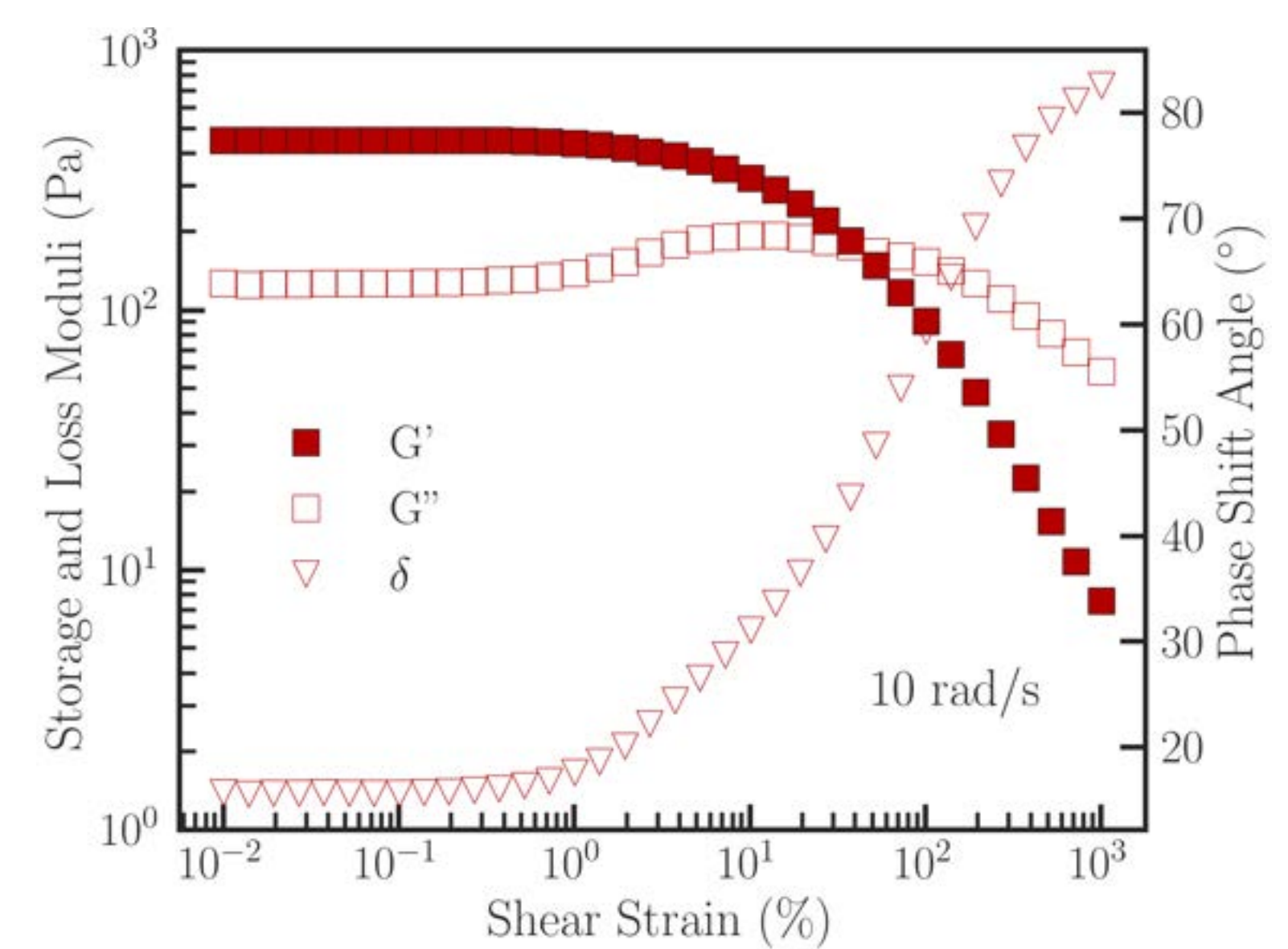


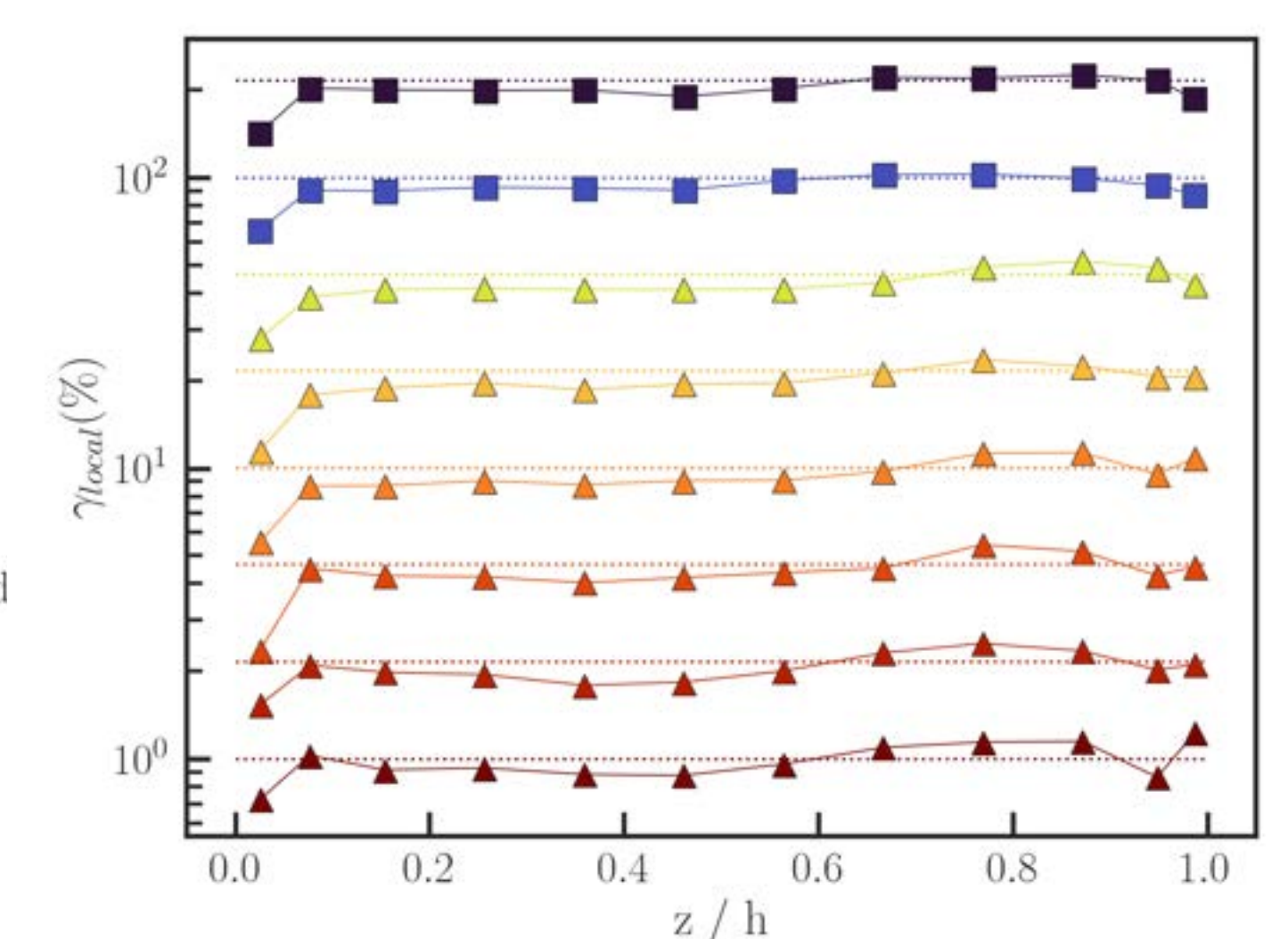
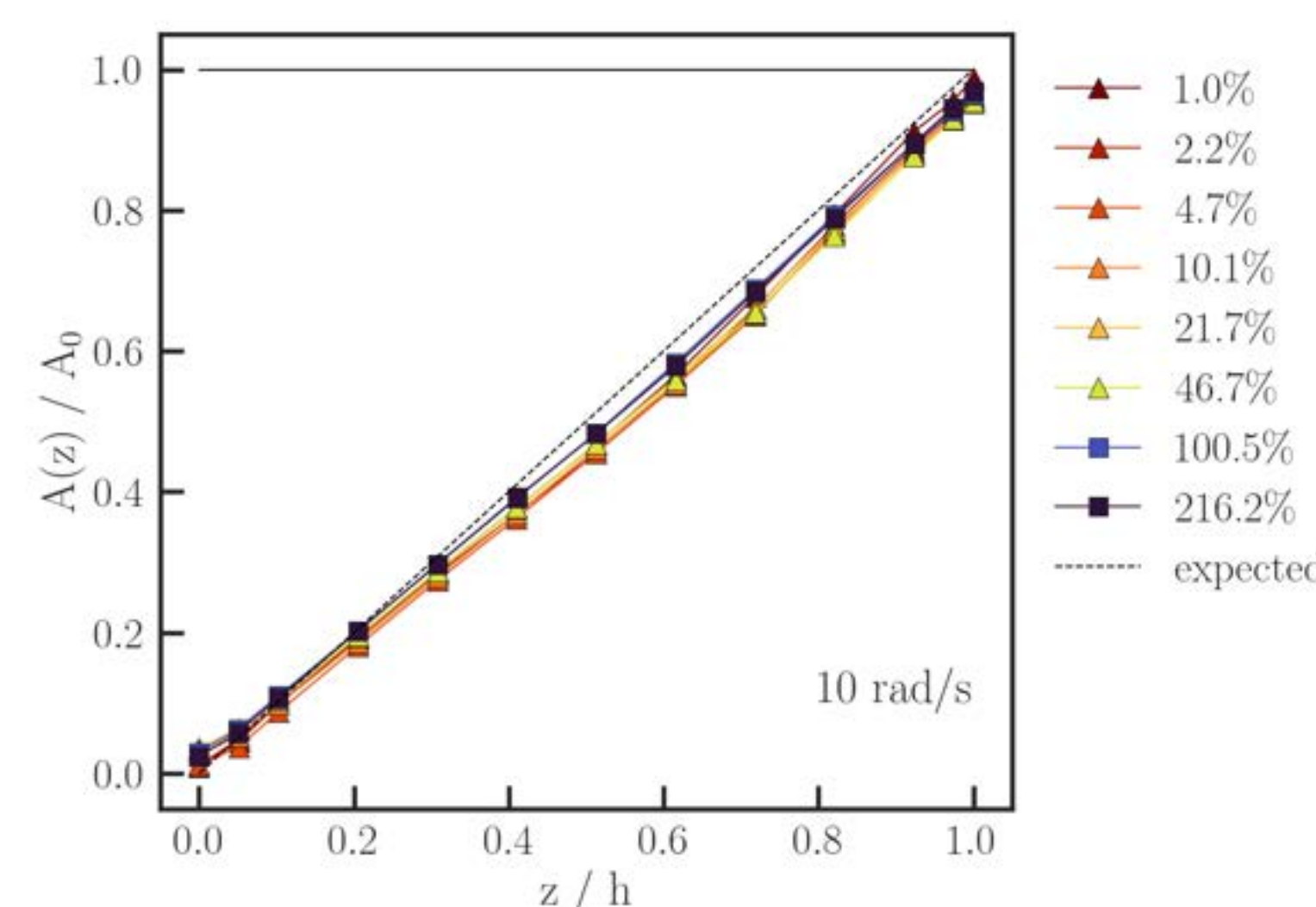
Rheo- microscopy of Soft Materials

MACRO scale

- Transparent parallel plate geometry
- Type III behavior in the LAOS regime (loss modulus G'' overshoot)
- Yield point around 40% strain

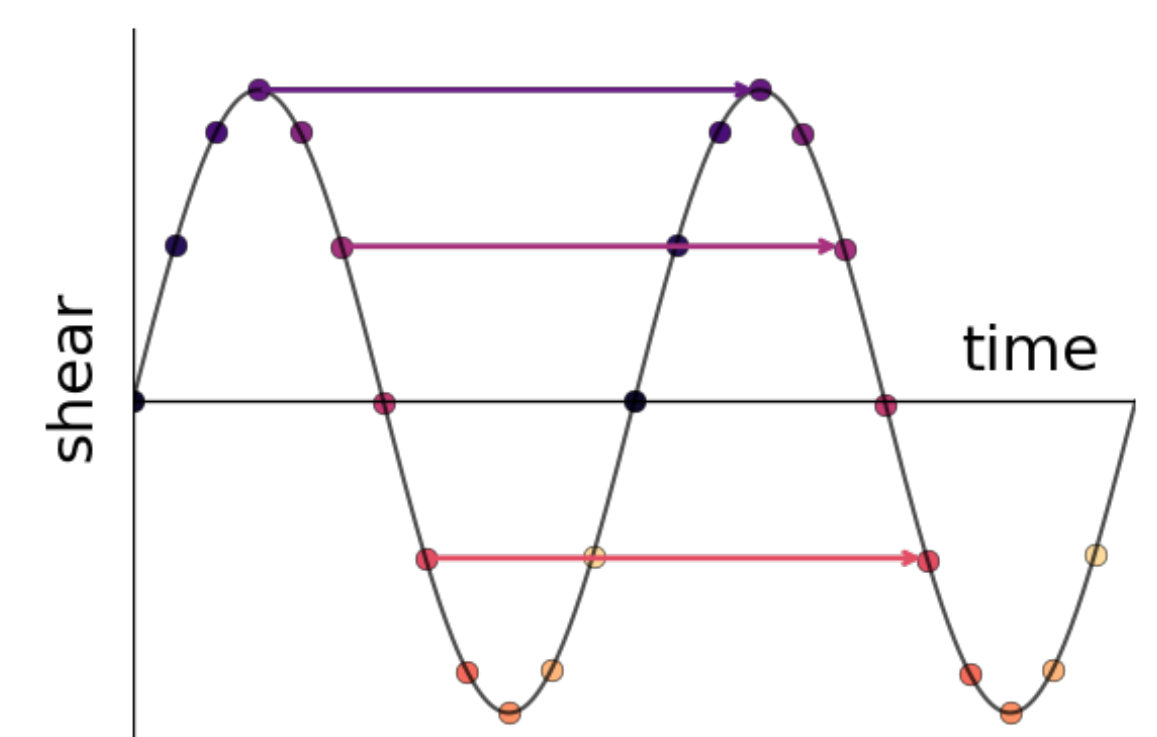
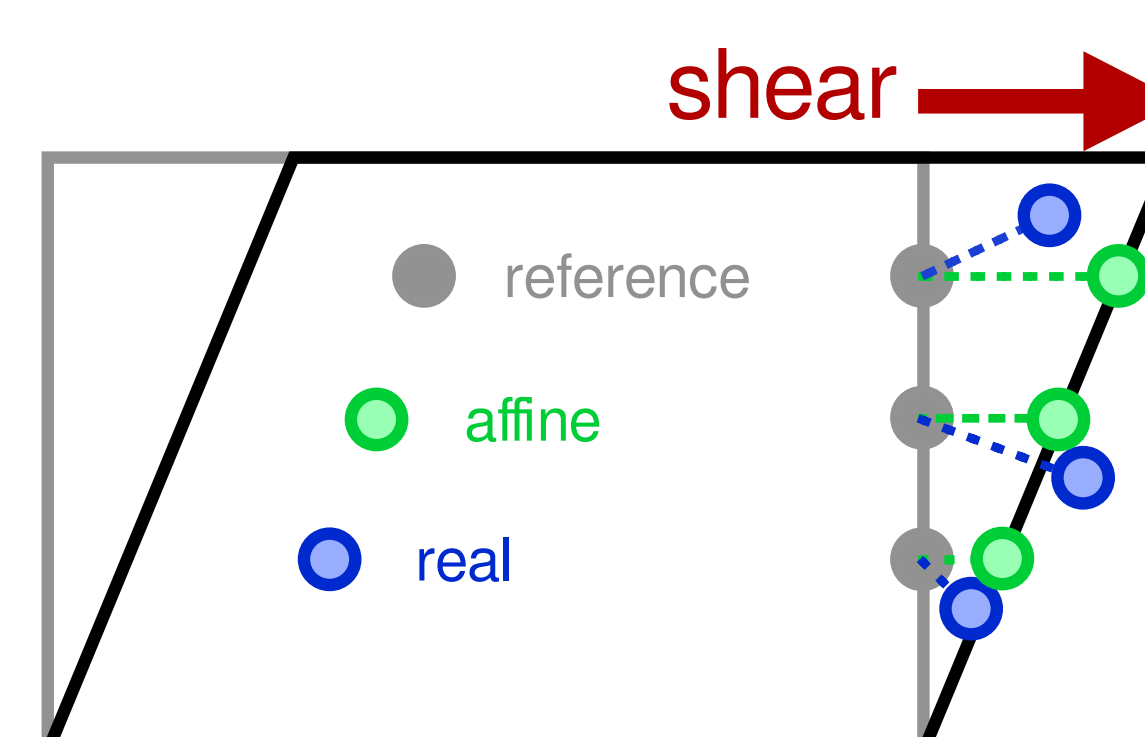


MESO scale

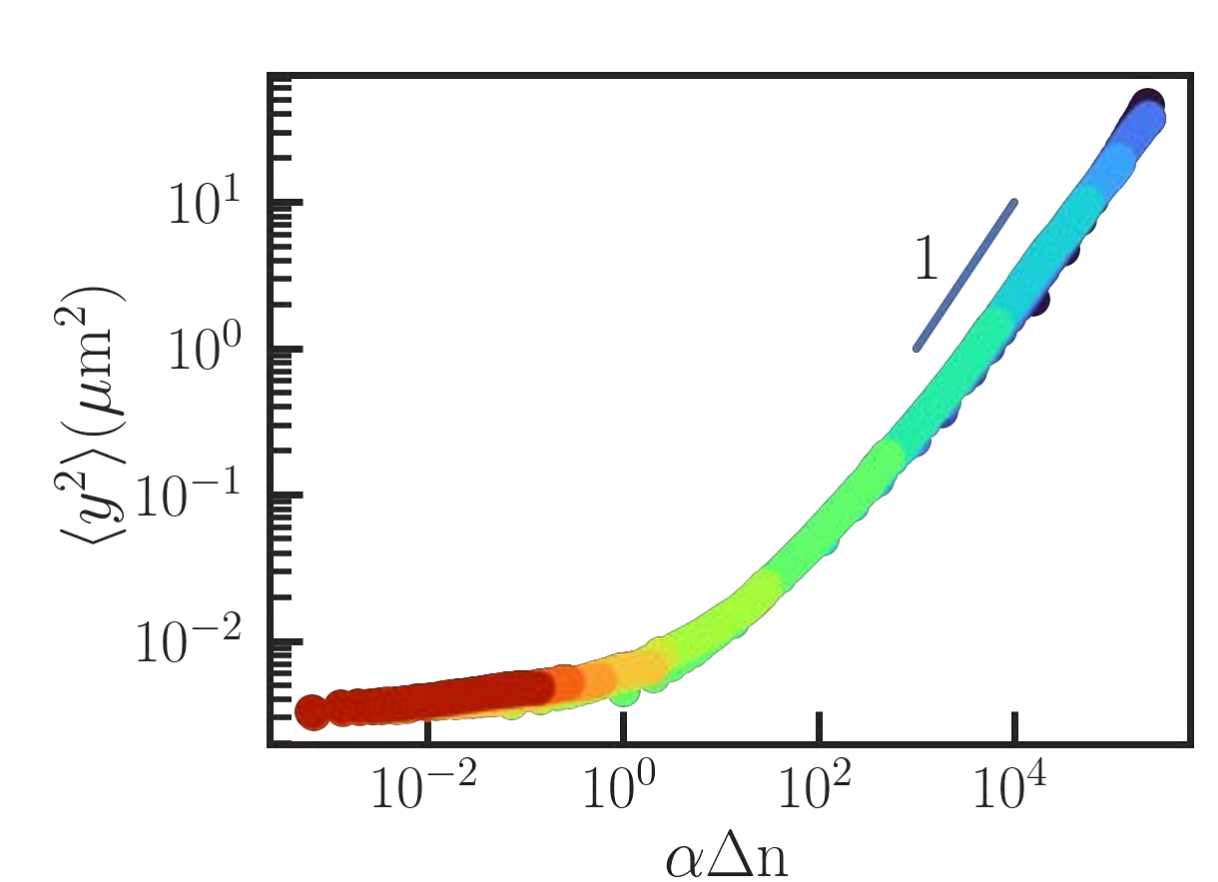
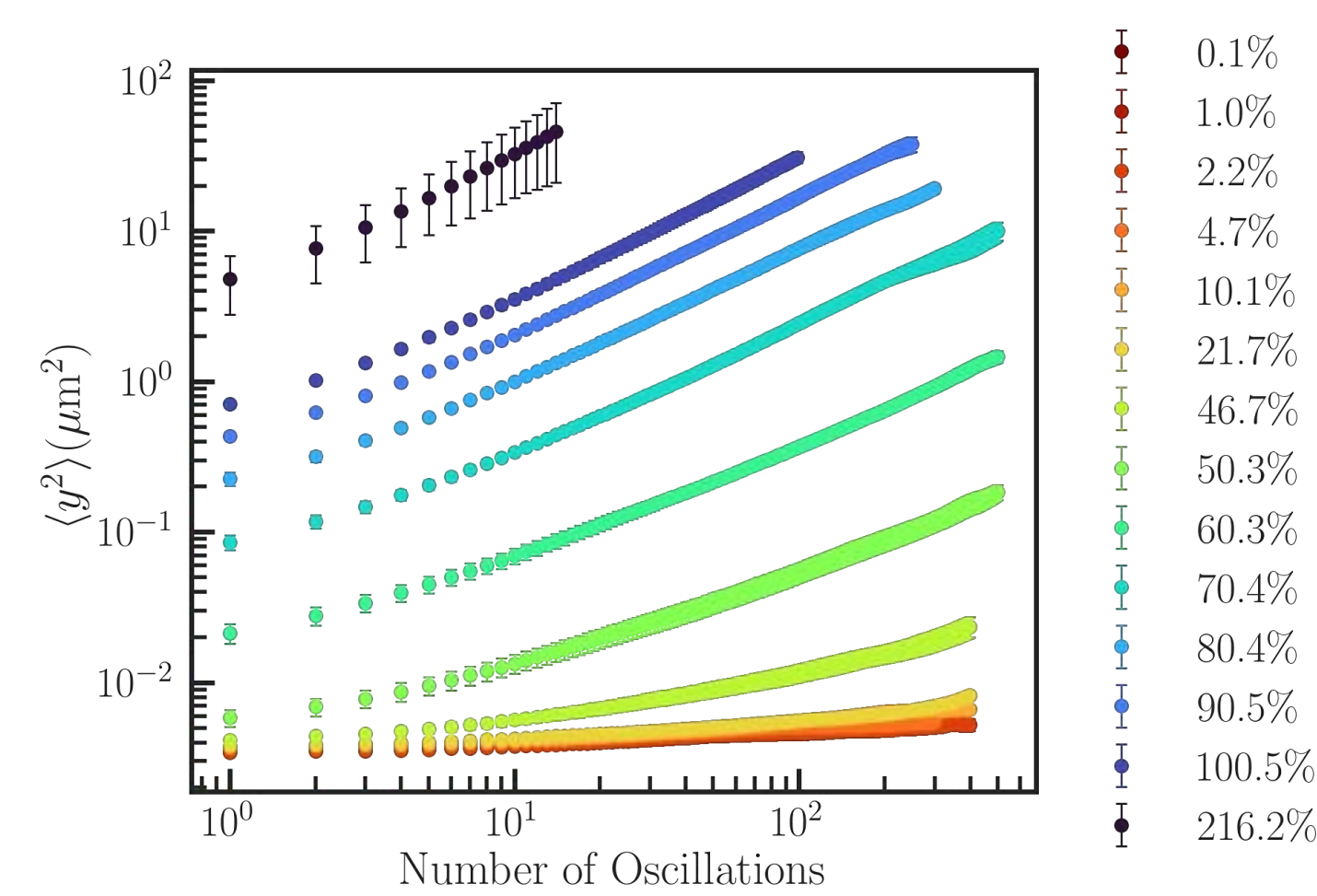


- Assessment of possible shear instabilities like wall slip and shear banding
- Direct measurement of the deformation profile (left)
 - > Consistent between different sample loadings (marker shape)
- Calculation of the local strain (right)

MICRO scale



- Echo protocol to assess the non-affine displacements



- Mean square displacement in the vorticity direction (orthogonal to shear)
- Master curve constructed by horizontal shifting (right)
- Yield point around 46% strain

