



**Fig. 1:** Crosslinking analysed for another two projection vectors. **a)** Fluorescence image of an entangled actin network connected to a hexagonal pattern of PLL-coated beads, before crosslinking occurs. White arrow indicates the projection vector for force curves in **d)**. **b)** After  $\approx 20$ s of recording the diffusion of magnesium ions into the microreaction chamber was initiated. At the time of 140s the actin network is completely crosslinked. **c)** Arrows illustrate the direction of force due to the contractile force effect of crosslinking after 140s. For the colored arrows **d)** shows the force curves for the respective beads. White arrows indicate the direction of forces for the other projection vectors. **d)** Selected force curves for Bead 1, 4, 7 (5, 4, 3, respectively) along projection vector in **a)**. Displacements of the beads are measured with 20 frames per second.