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Watching entangled circular DNA in real time with superresolution AH-YOUNG JEE, HYEONGJU KIM, STEVE GRANICK, Institute for Basic Science — In this talk, we will show how we unraveled the conformational dynamics of entangled ring-shaped polymers in network, which is one of the most well-known problems in polymer physics, using deep imaging based on superresolution fluorescence imaging, stimulated emission depletion (STED) microscopy. By using home-written software, we obtained the statistics of each of the hundreds of molecules, mapping out a large statistical distribution. Through inspection we not only found some aspects of the classic understanding of polymers, but some surprising aspects as well.

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