

Abstract Submitted
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Analysis of gel heterogeneities on a local level PHILIP BOYNE,
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— We study the heterogeneity of gels near the sol-gel transition through measurements of the spatial variations in gel strength. The correlated motion of fluorescent polystyrene microspheres suspended in gels is measured via two-point microrheology. Analysis of this correlated motion provides a local measure of gel heterogeneity. Additionally, we divide the images into micron-wide squares and determine how rheological properties spatially vary as a function of gel concentration. Our results imply that weaker gels exhibit more heterogeneity than stronger gels.

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