

## Structural analysis of networks

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In this lecture, we will learn how scattering methods help us study the structure and behavior of gels and polymers. Scattering uses probes like light, X-rays, or neutrons to look inside materials without cutting or breaking them. We will start with simple ideas—what scattering is, how it works, and what we can learn from it.

Then we will see examples from real experiments. You will learn how light scattering shows particle motion, how X-rays show internal structures, and how neutrons help us see soft materials.

We will also look at basic experimental setups.

This talk is for students who are curious about soft materials and want to understand how we can study something that we cannot easily see with our eyes.