Visualisation and Understanding in Theories with and without a Spacetime

The debate over the indispensability of representing physical systems in space and time is an old one. Theories of modern physics, especially quantum mechanics, have become increasingly abstract: and so, they are more difficult to visualise and to interpret. In this talk, I will address the question whether quantum gravity theories, in which space and time are fundamentally absent, can be understood using conventional methods: as physical theories, but lacking a spacetime.