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WORKSHOP ON QUANTUM INFORMATION IN QUANTUM MANY-BODY PHYSICS  
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## Mutual information in the Lipkin-Meshkov-Glick model

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Mutual information is a (quantum-)information-theoretic tool that can be used to quantify the correlations between two parts of a system. Phase transitions of a system are typically characterized by a change of the correlations in the system. We therefore try to use mutual information as a tool to better understand the nature of phase transitions, and in particular apply it to a collective spin model.

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