7. Quantum entanglement

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Pure state



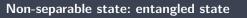
LU equivalent



Example



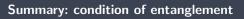
Separable state



Example

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PPT Criteria



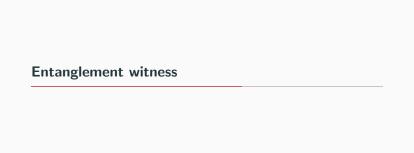


Entanglement measure





Summary: quantuntity of entanglement



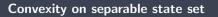
Positive trace test

Feasibleness

Example

Summary: entanglement witness of arbitrary quantum state





Quantum channel





Summary

Summary

References

 Lecture notes for EE547: Introduction to Quantum Information Processing (Fall 2024)