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Quantum estimation in an expanding spacetime

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- Fisher information and quantum Fisher information of estimation on Hubble parameter of de Sitter space are investigated.
- Quantum Fisher information degrades due to Gibbons-Hawking radiation
- Quantum Fisher information can be enhanced for proper coupling of scalar field to curvature.
- Optimal quantum Fisher information is dependent on the choice of de Sitter α-vacua due to their squeezed nature.

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