

## Quantum Physics

### Download:

- [PDF](#)
- [Other formats](#)

Current browse context:

**quant-ph**

[< prev](#) | [next >](#)

[new](#) | [recent](#) | [1010](#)

Change to browse by:

[cs](#)

[cs.IT](#)

[math](#)

### References & Citations

- [SLAC-SPIRES HEP](#)  
([refers to](#) | [cited by](#))
- [NASA ADS](#)

Bookmark([what is this?](#))



# Entanglement boosts quantum turbo codes

[Mark M. Wilde](#),  
[Min-Hsiu Hsieh](#)

*(Submitted on 6  
Oct 2010)*

One of the unexpected breakdowns in the existing theory of quantum serial turbo coding is that a quantum convolutional encoder cannot simultaneously be recursive and non-catastrophic. These properties are essential