Holographic entanglement entropy vs backreaction CHRISTOPH
UHLEMANN, HAN-CHIH CHANG, ANDREAS KARCH, University of Washington — The degree of entanglement among two systems can be quantified by the
entanglement entropy, which plays a role in many areas of physics. Its calculation
in QFT, however, is challenging. If available, a holographic description in terms of
AdS/CFT simplifies this considerably, and thus provides the tool of choice. Many
interesting AdS/CFT dualities are realized as small deformations of simpler cases,
with the addition of probe branes to describe CFTs with flavor as a prominent example. We discuss new tools to efficiently compute the entanglement entropy in
that setting and apply them to the D3/D7 system.

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