Contribution ID: **9** Type: **not specified**

The problematic backreaction of SUSY-breaking branes

We investigate whether vacuum solutions in flux compactifications that are obtained with smeared sources (orientifolds or D-branes) still survive when the sources are localised. This seems to rely on whether the solutions are BPS or not. We then use a specific setup with SUSY-breaking branes to further investigate this issue and show, for a wide class of boundary conditions, that there is no flux vacuum when the branes are described by a genuine delta-function. Even more, we find that the smeared solution is the unique solution with a regular brane profile. Our setup consists of a non-BPS AdS7 solution in massive IIA supergravity with smeared anti-D6-branes and fluxes T-dual to ISD fluxes in IIB supergravity. This casts doubts on the stringy consistency of non-BPS solutions that are obtained in the limit of smeared sources.

Primary authors: Mr JUNGHANS, Daniel (Leibniz Universität Hannover); Mr BLABÄCK, Johan (Uppsala Universitet); Prof. ZAGERMANN, Marco (Leibniz Universität Hannover); Dr VAN RIET, Thomas (Uppsala Universitet); Dr WRASE, Timm (Cornell University); Prof. DANIELSSON, Ulf (Uppsala Universitet)

Presenter: Mr JUNGHANS, Daniel (Leibniz Universität Hannover)