

Journal Club: Session 7: 9.Dec 2019, 16:00

TOPIC: Plasma Wakefield Acceleration

Material:

A: Caldwell, A. et al, *Nature Phys* 5, 363–367 (2009) doi:10.1038/nphys1248 (Paper uploaded to indico!)

Topics for discussion:

- 1) How can a wakefield be created in a plasma?**
- 2) What is the main difference between electron and proton driven wake field excitation?**
- 3) Which properties has a proton drive bunch to fulfil to enable a strong accelerating field gradient?**
- 4) Why does an electron witness bunch not dissociate (longitudinally and transversally) while being accelerated?**