

# Embedding Henselian fields into power series

Antongiulio Fornasiero

fornasiero@mail.dm.unipi.it

Università di Pisa, Italia

We extend Mourgues and Ressayre's theorem to Henselian fields. Every Henselian field of residue characteristic 0 admits a truncation-closed embedding in a field of generalised power series (possibly, with a factor set). This, in turn, implies that every ordered field which is Henselian in its natural valuation has an integer part. We also give some partial results for the characteristic  $p$  case.