Ralph Showalter* (show@math.oregonstate.edu) and Dwight Holland. Visco-elastic Consolidation.

We model a sedimentary basin as a saturated granular deforming porous medium of sand or silt consolidating due to its own weight and an overburden pressure. The porosity satisfies a degenerate PDE of pseudo-parabolic type for which we describe the existence and regularity of solutions. (Received February 23, 2017)