

Weak solutions for a version of compressible Oldroyd-B model without stress diffusion

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We first recall the construction of weak solutions to a multifluid compressible model studied in [Novotný Pokorný: Weak Solutions for Some Compressible Multicomponent Fluid Models, to appear in ARMA]. Based on this result we explain that in case of the corrotational derivative we may reformulate the compressible Oldroyd-B model describing the flow of compressible visco-elastic fluid into a form which is very close to models studied in the aforementioned paper. We explain how it is possible to modify the construction of weak solutions so that it captures this version of the Oldroyd-B model and therefore show existence of a solution for this model without any restriction on the size of the data. It is a joint work with Yong Lu from University of Nanjing.