Beitrag ID: **1** Typ: **Talk**

Rayleigh-Taylor instability in non-ideal media: a quasi-irrotational approximation

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We present the results of the quasi-irrotational approximation developed to deal with the problem of the linear Rayleigh-Taylor instability in incompressible and immiscible non-ideal finite thickness media when the top surface of the layer is attached to a rigid wall, and extend them to the cases in which it is a free surface. These constitute two families of problems that allow for considering a wide variety of problems.The approximate results are compared with the exact ones finding an excellent agreement, which shows that the mathematical complexities introduced by the vorticity do not correspond with its physical relevance for the instability dynamics.

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Sitzung Einordnung: Session 2 - Inertial Confinement Fusion 1