

**A trial to construct specific self-similar solutions  
for nonlinear wave equations**

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An attempt to construct self-similar solutions to non-linear wave equations  $\square u = |u|^p$  and  $\square u = |u|^{p-1}u$  will be explained. The existence of self-similar solutions has been already established by Pecher (2000), Kato-Ozawa (2003), etc, based on the standard fixed point theorem. In this talk, we will discuss it by a constructive method based on a relation to the hypergeometric differential equation.