Stability of solitary waves for the generalized Klein-Gordon-Hartree equation (based on a joint research with Mirko Tarulli and George Venkov, Technical University of Sofia)

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We explore the generalized Klein-Gordon-Hartree equation where we are interested in finding the set of the so called "ground states". These are radially symmetric, positive and decreasing solutions to the corresponding stationary equation (also known as the Euler-Lagrange equation).

"Ground states" solutions are minimizers of the action functional associated to the generalized Klein-Gordon Hartree equation and to the stationary equation, in particular. By applying a classical result by Shatah, we provide sufficient conditions for the stability of the set of "ground states" solutions.