

# Hybrid model of accelerated double step size method

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This paper presents a hybridization of accelerated double step size model introduced in [9]. Based on the hybrid iterations presented in [4], we define a hybrid form of accelerated model with two step length values. The values of the iterative step sizes are calculated using the Armios' line search procedure. In this regard, we estimate the initial value for the Backtracking algorithm and so the improvement, compared to the relevant algorithm used in [9], is achieved. We prove that this hybrid double step size scheme is linearly convergent on the set of uniformly convex functions.

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