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Sedi Bartz and **Rubén Campoy*** (ruben.campoy@ua.es), C/ Pablo Picasso 4, 2A, 03660 Novelda, Alicante, Spain, and **Hung M. Phan**. *Demiclosedness Principles for Generalized Nonexpansive Mappings*.

Demiclosedness principles are powerful tools in the study of convergence of iterative methods. For instance, a multi-operator demiclosedness principle for firmly nonexpansive mappings is useful in obtaining simple and transparent arguments for the weak convergence of the shadow sequence generated by the Douglas–Rachford algorithm. We provide extensions of this principle, which are compatible with the framework of more general families of mappings such as co-coercive and conically averaged mappings. As an application, we derive the weak convergence of the shadow sequence generated by the adaptive Douglas–Rachford algorithm. (Received September 14, 2020)