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Martha Alvarez* (mar@xanum.uam.mx), San Rafael Atlixco 186 Col. Vicentina, Iztapalapa, 09340 Mexico, DF, Mexico, Joaquin Delgado (jdf@xanum.uam.mx), San Rafael Atlixco 186 Col. Vicentina, Iztapalapa, 09340 Mexico, DF, Mexico, and Claudio Vidal (clvidal@ubiobio.cl), Casilla 5-C. Concepcion, VIII-Region, Concepcion, Chile. Global regularization in the planar equilateral restricted four-body problem.

We consider the planar equilateral restricted four-body problem, and in particular some its aspects related to regularization and periodic collision orbits. The regularization of binary collisions by a generalization of Birkhoff coordinates is described. The theory is illustrated with the description of a new family of symmetric periodic collision solution. (Received August 10, 2012)