1086-70-766 **Donald G. Saari\*** (dsaari@uci.edu), SSPB, University of California, Irvine, CA 92697-5100. *Mathematics and the mystery of "dark matter"*. Preliminary report.

A fascinating issues in astronomy is that mysterious "dark matter" where, for reasons explained in the talk, huge amounts of matter (beyond what has been observed) must exist. But by using standard mathematical arguments from celestial mechanics, new assertions, which raise serious doubts about the "amount of missing mass" are raised. (Received September 12, 2012)