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Feride Tiglay*, 1179 University Drive, Newark, OH 43055. *The Cauchy problem for Euler-Poisson equation and nonuniform dependence*. Preliminary report.

We consider the Cauchy problem for an integrable Euler-Poisson equation which describes the fluctuations in the ion density of a two-component plasma of positively charged ions and negatively charged electrons. We review the well posedness in Sobolev spaces and show that the solution map is not uniformly continuous. (Received September 19, 2016)