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AYNUR BULUT* (abulut@umich.edu), 530 Church Street, Ann Arbor, MI 48109. *Negative energy blowup for the focusing Hartree hierarchy via identities of virial and localized virial type.*

In this talk we report on new negative energy blowup results for the Hartree hierarchy, an infinitely coupled system of PDEs arising from the study of many-body quantum mechanics. The results are obtained both with and without an assumption of finite variance on the initial data with the key tools involved are virial identities for the Hartree hierarchy, together with localized variants of these identities. The most delicate case of the analysis is the proof without finite variance – here, we use a suitable quantum de Finetti theorem and a carefully chosen truncation lemma allowing for the control of additional terms appearing from the localization procedure. (Received September 21, 2015)