Fakultät für Physik
Gravitationsphysik
1090 WIEN, BOLTZMANNGASSE 5

universität wien

E I N L A D U N G

im Rahmen Literaturseminars

zum Vortrag

von

Hakan Andreasson

(Goteborg)

über

„Compactness of minimizing sequences for the Einstein-Vlasov system“

Abstract:

It is well-known that spherically symmetric steady states of the Vlasov-Poisson system can be obtained as minimizers of an energy-Casimir functional. This has played an important role for the celebrated stability results in that case.
It is also well-known, cf. the recent review paper by Rein arXiv:2305.02098, that there are no analogue results for the Einstein-Vlasov system, mainly due to lack of compactness.
In this talk I will close this gap by showing compactness of minimizing sequences to a particle-number-Casimir functional, which then implies the existence of a minimizer. Under a regularity assumption it follows that the minimizer is a steady state of the spherically symmetric Einstein-Vlasov system.
As a consequence of the proof, a condition arises which we believe is sufficient for non-linear stability.
All claimed conditions of this type have so far been disproved in numerical studies.
This is a joint work with Markus Kunze.

Ort: Seminarraum A, Währinger Straße 17, 2. Stock
Zeit: Mittwoch, **29.11.2023**, **14.15 h** - Seminarraum A, Währinger Straße 17, 2. Stock

https://univienna.zoom.us/j/6540036841?pwd=SytyVkZJZzNyRG9lMm13ejlHeHRRUT09

gez.: P. Chrusciel, D. Fajman