1087-37-122 Federico Bonetto (bonetto@math.gatech.edu), Nikolai Chernov* (chernov@math.uab.edu), Alexey Korepanov (khu@uab.edu) and Joel Lebowitz (lebowitz@math.rutgers.edu). Local characteristics of SRB measures.

We derive Green-Kubo type formulas for the densities of the projections of Sinai-Ruelle-Bowen (SRB) measures in nonequilibrium Lorentz periodic gases. Those densities represent physically interesting quantities like "particle density", "local electrical current", and "angular velocity distribution". We also prove that despite the singular nature of the SRB measure its projections on transversal subspaces are absolutely continuous. (Received December 01, 2012)