Erratum: Glass Transition and the Coulomb Gap in Electron Glasses
[Phys. Rev. Lett. 93, 256403 (2004)]

M. Müller and L. B. Ioffe
(Received 3 April 2007; published 30 April 2007)
DOI: 10.1103/PhysRevLett.98.189902 PACS numbers: 71.23.Cq, 64.70.Pf, 71.55.Jv, 99.10.Cd

In the Letter [1], Fig. 2 displays a nonmonotonic behavior of the distribution of thermodynamic fields, \( P(y) \), on the scale \( y \sim T \). This feature is an artifact of the ansatz made for the distribution \( P(h) \), and it is absent from the exact solution for the low temperature phase [2]. However, the estimate this ansatz provided for the coefficient of the parabolic Coulomb pseudogap turns out to be excellent.

The Landau expansion after Eq. (6) misses the cubic term \( \sum_{a,b} \delta B^3_{ab} \), which affects the structure of replica symmetry breaking close to \( T_c \). The computation shows that its coefficient is smaller than that of \( \text{Tr}[\delta B^3] \), and thus the continuous nature of the glass transition is not changed. However, the solution below \( T_c \) is modified, in particular, \( Q(x) \) acquires a plateau at \( x = 0 \), similarly to the glass phase of the Sherrington-Kirkpatrick model with random fields.

These points are explained in more detail in Ref. [2], in particular, in footnotes 46 and 67.