Harigaya, Wada, and Fesser Reply: In the cases where the average over the impurities can be done exactly, the supersymmetric technique gives indeed an exact solution, as pointed out in the Comment.[1] This is the case, for example, for the Gaussian and Poisson distributions. The former corresponds to a Born approximation to the problem under consideration.[2] We attempted to go beyond this step, in order to get more reliable information about the level structure of disordered conjugated polymers. Since the latter possibility (Poisson[3]) has come to our attention only recently, we relied upon the conventional techniques such as coherent-potential approximation (CPA). Juding from the published results for the Poisson distribution,[3] where only the *integrated* density of states $D(E)=\int_0^E \rho(\varepsilon)d\varepsilon$ has been calculated, we expect a similar structure in our case; i.e., a density of states, which is smooth in the Gaussian case, develops more structure including poles (and consequently steps in the integrated density of states) in the Poisson case as demonstrated in Ref. 3. The issue of isolated states therefore is important, and we believe that our CPA treatment does give a qualitatively correct answer to this problem.

To the best of our knowledge, Xu and Trullinger[4] have adopted the finite-energy cutoff and taken the chemical potential to be zero, in their numerical calculations of the order parameter. The finite-energy cutoff violates the sum rule of the total number of states. It should be replaced by the constant wave-number cutoff. In addition, the constant chemical potential results in nonconservation of electron number. The chemical potential has to be determined by the electron-number conservation. The two conditions must be incorporated in order to obtain a full self-consistent solution. In our work, these have been taken into account. Numerical details will be reported in upcoming publications.[5]

The authors thank T. Ohtsuki for informing them of Ref. 3.

K. Harigaya and Y. Wada
Department of Physics
University of Tokyo
Bunkyo-ku, Tokyo 113, Japan

K. Fesser
Physikalisches Institut
Universität Bayreuth
D-8580 Bayreuth, Federal Republic of Germany

Received 6 April 1990
PACS numbers: 71.20.Hk, 71.25.−s, 73.20.Dx

[1]B.-C. Xu and P. L. Taylor, preceding Comment, Phys. Rev. Lett. **65**, 805 (1990).

[2]A. A. Abrikosov and I. A. Ryzhkin, Adv. Phys. **27**, 147 (1984).

[3]E. Brézin, D. J. Gross, and C. Itzykson, Nucl. Phys. **B235**, 24 (1984).

[4]B.-C. Xu and S. E. Trullinger, Phys. Rev. Lett. **57**, 3113 (1986); B.-C. Xu, J. Phys. Condens. Matter **1**, 3409 (1989).

[5]K. Harigaya, Y. Wada, and K. Fesser (unpublished); K. Harigaya, J. Phys. Soc. Jpn. **59**, 1348 (1990).