RKKYologists Unearthed

In Philip W. Anderson's Reference Frame in the January issue (page 9), reference is made to our recent work on the RKKY interaction in a disordered metal. We wish to correct his citation: We collaborated on this work with Anuradha Jagannathan.[1] Furthermore, as we pointed out in reference 1, similar work had been published previously by A. Yu. Zyuzin and B. Z. Spivak,[2] and related work by L. N. Bulaevskii and S. V. Panyukov[3] has also appeared. While these other authors did not address the question of the scaling law that was the subject of Anderson's essay, they pointed out the inapplicability of Pierre-Gilles de Gennes's earlier result.[4] Actually, as also remarked in reference 1, much of the essential physics of the disordered RKKY was discussed qualitatively by P. F. de Chatel[5] in 1981.

References

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2. A. Yu. Zyuzin, B. Z. Spivak, Pis'ma Zh. Eksp. Teor. Fiz. **43**, 185 (1986) [JETP Lett. **43**, 234 (1986)].
3. L. N. Bulaevskii, S. V. Panyukov, Pis'ma Zh. Eksp. Teor. Fiz. **43**, 190 (1986) [JETP Lett. **43**, 240 (1986)].
4. P.-G. de Gennes, J. Phys. Radium **23**, 630 (1962).
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Minding One's Majorons

I enjoyed reading Barbara Levi's news story "Two-Neutrino Double β Decay Seen; Neutrinoless Decay Sought," found in the December 1987 issue (page 19). I found the description of the theoretical parts very exhaustive.

However, the story stated that "Graciela Gelmini . . . and Marco Roncadelli first suggested the existence of the majoron." Actually they first suggested the existence of the *triplet* majoron. The concept of the majoron was first suggested by Y. Chicashige, Rabindra Mohapatra and Roberto Peccei (*Phys. Lett. B* **98**, 265, 1981; *Phys. Rev. Lett.* **45**, 1926, 1980) in the context of the "singlet" majoron model.

While the singlet majoron model has no implications for double β decay, this original work did influence subsequent research and should be given proper credit.

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Attracting Tomorrow's Physicists Today

A few thoughts with respect to graduate recruitment: The statistics on American students prove that our profession is gravely, perhaps mortally, ill. Without foreign graduate students, the supply of which is under attack as "exporting American technological leads," university physics research would approach collapse.

Our largest difficulty is cultural. The present generation of students puts a large premium on financial success. At age 50, the median law partner earns $160 000 a year (1985 data). Among full professors in the physical sciences, salaries greater than a third of this are rare, while salaries under a quarter of this are common. As changing the salary figures is implausible, we should cultivate students of a monastic bent, those for whom the pursuit of intellectual excellence greatly outweighs mundane financial matters.

"The excitement of physics" is not a proper advertisement. If by excitement we mean the cardiac, muscular and respiratory responses attendant to stimulation of the adrenals—and this is how "excitement" is interpreted by the juveniles we reach—it is not honest to claim that physics is exciting. And why should we promise excitement? A person who craves short-term gratification is unlikely to have the patience or serenity needed to attack hard problems.

We might better promise membership in an elite, open to those with some talent and a great willingness to work hard. "The secrets of the elect, known only to the few" has a long history as a successful sales pitch.

While there is no reason to believe that we can increase the number of female graduate students to match