

# Erratum: Thermal quasiparticle correlations and continuum coupling in nuclei far from stability [Phys. Rev. C **67**, 014304 (2003)]

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We found an error in Eq. (41), which leads to the incorrect statement in the last sentence of Sec. II E on the suppression of the thermal fluctuation  $\delta\bar{N}_2^2(\beta)$  of the quasiparticle number. The corrected discussion is given in C1 below in quotation marks. This should replace two sentences starting from “It is easy to see . . .” until “. . . because of definition (33)” including Eq. (41) on the left column of p. 5, while the last sentence of Sec. II E should be deleted. The results presented in Fig. 5 (thick solid, dashed, and dotted lines) remain unchanged as they were calculated in the code using the correct expression.

C1. “In order to compare the quantal  $\delta N_1^2$  and statistical  $\delta N_2^2$  fluctuations of particle number obtained within the FTBCS approximation with the corresponding ones within the MBCS approximation, the latter are estimated using Eq. (25) after replacing  $\tilde{\Delta}$ ,  $E_j$ , and  $\lambda$ , with  $\bar{\Delta}$ ,  $\bar{E}_j$ , and  $\bar{\lambda}$ , respectively, which are found solving the MBCS equations (39) and (40).”

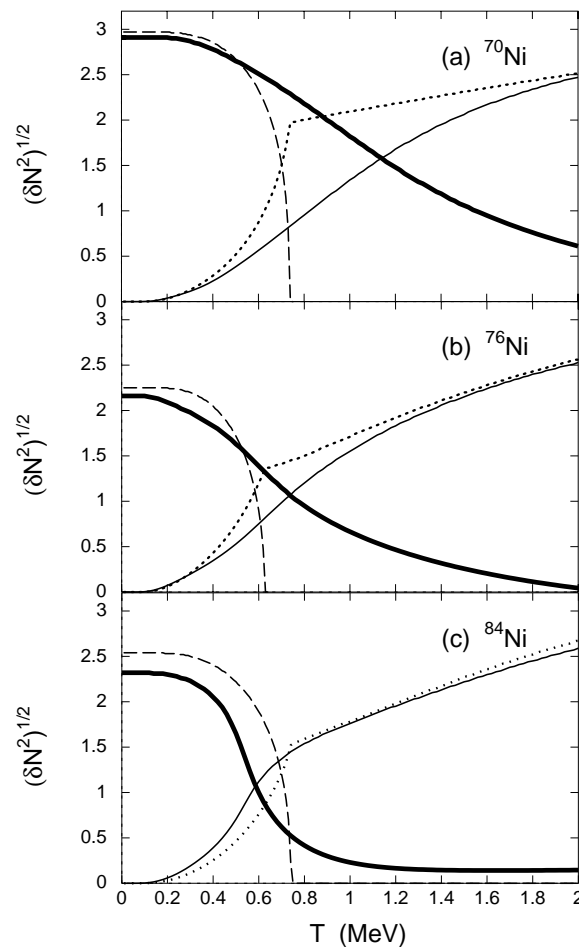


FIG. 5. Particle-number fluctuations  $\sqrt{\delta N_i^2}$  for  $^{70,76,84}\text{Ni}$  as a function of temperature. The dashed and dotted lines show  $\sqrt{\delta N_1^2}$  and  $\sqrt{\delta N_2^2}$ , respectively, obtained within the BCS approximation, while the thick and thin solid lines stand for the corresponding quantities obtained within the resonant-continuum MBCS approximation.

Consequently, in the second paragraph on p. 8, the sentence “Meanwhile, within the MBCS approximation, only  $\sqrt{\delta N_1^2}$  survives, which decreases with increasing  $T$ ” together with Fig. 5 should be replaced with C2 below and the revised Fig. 5.

C2. “Within the MBCS approximation the quantal fluctuation  $\sqrt{\delta N_1^2}$  decreases, while the statistical fluctuation  $\sqrt{\delta N_2^2}$  increases monotonously with increasing  $T$ .”

Finally, the sentence “The fluctuations of particle number are also more suppressed within the resonant-continuum MBCS approximation, especially at high temperature and for nuclei closer to the drip line,” which comes before the last one in the first paragraph of the right column on p. 9 should be replaced with C3 below.

C3. “The quantal fluctuation of particle number is more suppressed within the resonant-continuum MBCS approximation, especially at high temperature and for nuclei closer to the drip line, while the statistical fluctuation of particle number increases monotonously with increasing  $T$ .”