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Quasiclassical approach to magnetic suceptibility[1] CAROLINE RICHARD, ANTON VOTONTSOV, Montana State University — Quasiclassical theory is a powerful technique that allows calculation of physical observables using just the low-energy states of the system. It is especially useful in studying properties of the non-uniform superfluid phases. We extend this approach to calculate response functions that involve high-energy correlations. Using example of Pauli magnetic susceptibility we employ Andreev approximation to express the spin-spin correlation function near a pairbreaking surface, in terms of low-energy, high-energy and mixed state contributions. This provides a convenient way to calculate response of a non-uniform superconductor at finite q-vectors.

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