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Nuclear Structure and the Neutrinoless  $\beta\beta$   
Decay

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**Abstract:** In this talk I will review the basic aspects of the neutrinoless double beta decay, with special emphasis in the calculation of the nuclear matrix elements (NME) that relate the lifetime of the process and the effective neutrino mass. I will make a critical analysis of the different competing approaches, and signal which are the most important open problems. I will discuss as well the influence of the main nuclear correlations, pairing and quadrupole, in the size of the NME's.