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Magnetic fluctuations close to an antiferromagnetic quantum critical point in heavy fermion alloys ALMUT SCHROEDER, BILAL ZOGHBI, Kent State University, Kent OH, COLLIN BROHOLM, Johns Hopkins University, Baltimore MD — Neutron scattering spectra of the heavy fermion compounds $\text{Ce}(\text{Cu,Au})_6$ and CeNi_2Ge_2 will be compared to characterize the magnetic correlations and dynamics close to an antiferromagnetic quantum critical point. While the magnetic response in $\text{Ce}(\text{Cu,Au})_6$ reveals quantum critical fluctuations which can be consistently described in a simple although unconventional picture, the scenario in CeNi_2Ge_2 is more complex, both defying the “ideal” conventional scenario expected for a three dimensional antiferromagnetic quantum critical point. (Work in collaboration with G. Aeppli, D.F. McMorrow, N. Christensen, M. Adams, O. Tegus, J. Mydosh, Y. Qiu.)

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