XMaS the UK-CRG	**Experiment title:** The Pr *L*-edge resonances in Nd/Pr superlattices	**Experiment number:** 28-01-090
Beamline: BM 28	**Date of experiment:** from: 13/9/00 to: 19/9/00	**Date of report:** 18/6/02
Shifts: 18	**Local contact(s):** Anne Stunault	*Received at XMaS:*

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Report:

"The anomalous lineshape at *L* edge resonances of Nd/Pr superlattices"

P. P. Deen, J. P. Goff, R. C. C. Ward, M. R. Wells and A. Stunault,
J. Magn. Magn. Mater. **240** 553 (2002).

Abstract:

X-ray magnetic resonant scattering studies of Nd/Pr superlattices have allowed the magnetic ordering of both constituents of the superlattice to be studied separately. However, the resonances at he *L* edges were found to be anomalous, and the aim of the experiment was to understand the lineshape of these energy dependencies. The dominant features, a large peak at the absorption edge and a high-energy shoulder, were found to be due to a dipolar transition to a broad *5d* band.