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**Magnetic stripe melting and metastable bubble domains in Fe/Ni/Cu(001)** J. CHOI, C. WON, Y.Z. WU, T. OWENS, J. WU, Department of Physics, University of California at Berkeley, Berkeley CA 94720, A. SCHOLL, A. DORAN, Advanced Light Source, Lawrence Berkeley National Laboratory, Berkeley CA 94720, W. KIM, KRISS, Yuseong, Daejon, Rep. of Korea, X.F. JIN, Department of Physics, Fudan University, Shanghai, P.R.China, Z.Q.QIU QIU, Department of Physics, University of California at Berkeley, Berkeley CA 94720 — Spin reorientation transition (SRT) of Fe/Ni/Cu(001) was investigated using photoemission electron microscopy (PEEM). Stripe domains were imaged as a function of temperature to monitor the domain melting process. We found that the stripe domains melt in a narrow thickness range of the SRT region. This result indicates that the Curie temperature at the SRT point is lowered by the reduction of the magnetic anisotropy. In addition to the stripe domains, we observed a metastable phase of magnetic bubble domains in the SRT region, which may suggest the importance of higher order magnetic anisotropy in the SRT.

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