Abstract Submitted
for the MAR15 Meeting of
The American Physical Society

Single-electron spin resonance in a Si/SiGe double quantum dot with a micromagnet KENTA TAKEDA, The University of Tokyo, JUN KAMIOKA, Tokyo Institute of Technology, TOSHIAKI OBATA, The University of Tokyo, TOMOHIRO OTSUKA, TAKASHI NAKAJIMA, MATTHIEU DELBECQ, SHINICHI AMAHA, JUN YONEDA, CEMS, RIKEN, AKITO NOIRI, RETSU SUGAWARA, The University of Tokyo, TETSUO KODERA, SHUNRI ODA, Tokyo Institute of Technology, SEIGO TARUCHA, The University of Tokyo and CEMS, RIKEN, THE UNIVERSITY OF TOKYO TEAM, TOKYO INSTITUTE OF TECHNOLOGY COLLABORATION, CEMS, RIKEN COLLABORATION — Electrons in Si quantum dots are promising candidates for implementing spin qubits because of their long coherence times [1, 2]. We report on our measurement results of addressable electron spin resonance in a Si/SiGe double quantum dot with a micromagnet. We also show that the addressable electron spin resonance is useful to understand two-electron spin and valley states in Si double quantum dot. [1] E. Kawakami *et al.*, Nat. Nanotech. (2014), [2] M. Veldhorst *et al.*, Nat. Nanotech. (2014)

Kenta Takeda
The University of Tokyo

Date submitted: 14 Nov 2014 Electronic form version 1.4