研究室名	棚本研究室　学会発表

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学会名	24th International Conference on Electronic Properties of Two-Dimensional Systems (EP2DS-24)
演題名	[E-PS-4-01] Conductance calculation in compact spin qubits of FinFET
発表者	○T. Tanamoto and K. Ono
内容	We theoretically investigate a transport properies of the compact spin-qubit system embedded into the common multi-gate FinFET transistors, where all gates are electrically tied togther as the common gate. The quantum dots (QDs) as qubits are coupled with their nearest Fin conducting channels. By using the Kubo formula, we have derived the conductance formula of the system, and we calculated two QDs with three current lines. The conductance increases as the asymmetry of the two QDs decreases for the region very close to the Fermi energy. (*)This work was partly supported by MEXT Quantum Leap Flagship Program (MEXT Q-LEAP) Grant Number JPMXS0118069228, Japan.