

TIMS Seminar

題目: **Strong spin-orbit interaction
in GaAs based quantum dots**

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概要: Precession of carrier's spin caused by the spin-orbit interaction is a key idea in spin-polarized field effect transistor. Recently, we observed a wave function dependent spin-orbit interaction in a low potential barrier quantum dot. By applying electric voltage, penetration of electron through interface of quantum wells changes, and the spin-orbit interaction can be tuned. The spin-orbit interaction increases significantly in this type of low barrier potential system, and it can be used in spin dependent FET in a smaller device.