Abstract Submitted
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Effect of parallel magnetic field on the zero-differential resistance state[1] NATALIA ROMERO, SEAN MCHUGH, MYRIAM P. SARACHIK, SERGEY A. VITKALOV, Physics Department, CCNY, A. A. BYKOV, Institute of Semiconductor Physics,Novosibirsk — The non-linear zero-differential resistance state (ZDRS) that occurs for highly mobile two-dimensional electron systems in response to a dc bias in the presence of a strong magnetic field applied perpendicular to the electron plane is suppressed and disappears gradually as the magnetic field is tilted away from the perpendicular at fixed filling factor ν. Good agreement is found with a model that considers the effect of the Zeeman splitting of Landau levels enhanced by the in-plane component of the magnetic field.

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