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**Post-selection effect of polarization in intensity correlation of electromagnetically induced transparency** HEEJUNG LEE, HANSEB MOON, Pusan National University — We have studied intensity fluctuations of a laser field propagating through a resonant Rb medium in a situation of electromagnetically induced transparency (EIT). We observed that the intensity fluctuations are depended on selecting polarization of the field after a Rb cell. These results are confirmed by placing a half-wave plate which induced the fluctuations between linearly polarized optical fields and a quarter-wave plate which induced the fluctuations between opposite circular polarized optical fields at the same condition. The magnitude of the correlations depends on the applied magnetic field. We also performed the incident power and temperature dependence of second-order correlation function  $g^{(2)}(0)$  at zero delay time in the condition of using quarter wave plate.

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