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(54) **DETECTION DEVICE, OPTICAL RECEPTION DEVICE, OPTICAL COMMUNICATION SYSTEM, PROGRAM, AND DETECTION METHOD**

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(57) **ABSTRACT**

A detection device for detecting polarization fluctuation of signal light having propagated through an optical transmission line includes: a differential phase information acquisition unit which acquires information indicating a differential phase of input light as an evaluation target at each of one or more time points; and a determination unit which determines whether the differential phase at at least some of the one or more time points satisfies a predetermined condition.