

Abstract Submitted
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Multimode Quantum State Tomography¹ ANDREW DAWES, Pacific University — Measuring the quantum state of a weak beam of light presents numerous challenges. Using array detection in an unbalanced homodyne configuration, we demonstrate a technique capable of measuring simultaneously the quantum state of as many as 200 individual modes at the few-photon level. This technique is being developed with an eye toward applications in characterizing systems that implement optical memory and free-space optical communication.

¹NSF

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