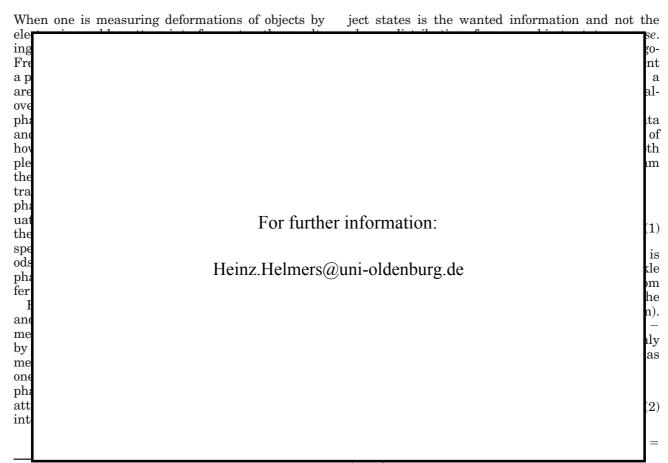
## **TECHNICAL NOTE**

## Complex division as a common basis for calculating phase differences in electronic speckle pattern interferometry in one step

## J. Burke and H. Helmers

We point out that all formulas for calculating the phase map of object deformations in one step can be described by the same simple formalism of a complex division. © 1998 Optical Society of America *OCIS codes:* 120.5050, 120.6160, 120.2650, 100.5070.



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Received 11 September 1997; revised manuscript received 24 November 1997.

0003-6935/98/132589-02\$15.00/0 © 1998 Optical Society of America The composite formula for one-step calculation of the phase difference with the four-step algorithm is

$$\Delta \varphi = \arctan \left( \frac{\Delta I_{42}' \Delta I_{13} - \Delta I_{42} \Delta I_{13}'}{\Delta I_{13}' \Delta I_{13} + \Delta I_{42}' \Delta I_{42}} \right), \tag{3}$$