# Nonlinear Analysis of Offshore Structures



Professor Bjørn Skallerud

4 Test 1 4 Test 1 Fig. 11. Deformed stiffened girder. (a) Test, (b) simulation.

(b)

From: Skallerud, B., Myklebust, L.I. and Haugen, B. (2001). Nonlinear response of shell structures: effects of plasticity modeling and large rotations. Thin-Walled Structures, 39, 463-482

### See:

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(a)

## **Selected Publications:**

## Book:

B. Skallerud and J. Amdahl, Nonlinear Analysis of Offshore Structures, Research Studies Pre, 2002, 340 pages

## **Journal Articles:**

B. Skallerud and B. Haugen, Collapse of thin shell structures: Stress resultant plasticity modeling within a corotated ANDES finite element formulation, Int. J. Numer. Meth. Engrg., 46, 1961–1986, 1999. Abuu K. Mohammed, Bjørn Skallerud and Jørgen Amdahl, "Simplified stress resultants plasticity on a

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M. Chiesa, B. Skallerud and D. Gross, Closed form line spring yield surfaces for deep and shallow cracks: formulation and numerical performance, Computers & Structures, 80, 533–545, 2002.

B. Skallerud, K. Holthe and B. Haugen, Combining high-performance thin shell and surface crack finite elements for simulation of combined failure modes, Proc.7th US Nat. Congress in Computational Mechanics, Albuquerque, NM, July 2003.

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