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Weighted residuals as a basis of a general solution method in elasticity. (English)

Zbl 0536.73014

Meccanica 19, 34-37 (1984).

Summary: It is shown that the general integral form of the elastic equilibrium equations obtainable through the weighted residuals agrees with the variational formulation given by the extremum conditions of the Washizu functional allowing a complete relaxation of the interelement continuity requirements.

MSC:

74S30 Other numerical methods in solid mechanics (MSC2010)

49M15 Newton-type methods

Keywords:

general integral form; elastic equilibrium equations; weighted residuals; extremum conditions of the Washizu functional

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References:

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