

Accepted Manuscript

Crack identification in rods and beams under uncertain boundary conditions

Michele Dilena, Marta Fedele Dell'Oste, Antonino Morassi

PII: S0020-7403(17)31323-1
DOI: [10.1016/j.ijmecsci.2017.09.017](https://doi.org/10.1016/j.ijmecsci.2017.09.017)
Reference: MS 3928



To appear in: *International Journal of Mechanical Sciences*

Received date: 19 May 2017
Revised date: 14 August 2017
Accepted date: 13 September 2017

Please cite this article as: Michele Dilena, Marta Fedele Dell'Oste, Antonino Morassi, Crack identification in rods and beams under uncertain boundary conditions, *International Journal of Mechanical Sciences* (2017), doi: [10.1016/j.ijmecsci.2017.09.017](https://doi.org/10.1016/j.ijmecsci.2017.09.017)

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Highlights

- We consider the identification of a small crack in uniform beams with uncertain boundary conditions
- Analogous results available in literature concerned with known end conditions only
- Minimal eigenfrequency data are provided for the unique identification of the damage and of the overall flexibility of the boundary
- The method yields to closed form expressions of the unknown parameters
- Exact, noisy and experimental eigenfrequency data were used to test the method

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