

## Accepted Manuscript

Fast formation of isogeometric Galerkin matrices by weighted quadrature

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PII: S0045-7825(16)31149-5

DOI: <http://dx.doi.org/10.1016/j.cma.2016.09.013>

Reference: CMA 11125

To appear in: *Comput. Methods Appl. Mech. Engrg.*



Please cite this article as: F. Calabrò, G. Sangalli, M. Tani, Fast formation of isogeometric Galerkin matrices by weighted quadrature, *Comput. Methods Appl. Mech. Engrg.* (2016), <http://dx.doi.org/10.1016/j.cma.2016.09.013>

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**Highlights (for review)****Highlights**

- we discuss the formation of isogeometric Galerkin matrices by row-loop and weighted quadrature instead of element-loop and standard Gauss quadrature.
- we give an estimate of the computational cost (FLOPs count) and compare with the standard approach
- we perform numerical tests showing that the proposed algorithm greatly over-performs existing software based on standard approaches

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