|  |  |
| --- | --- |
| Nº línea |  |
| 1 | **Software Release Patterns: When is it a good time to update a software** |
| 2 | **component**? |
| 3 | **Abstract** |
| 4 | Over the past decade the industry 4.0 witnessed a trend towards an increasing |
| 5 | number of software components, dependencies towards third party software |
| 6 | components, and software component release cycles. Industry 4.0 teams building |
| 7 | software products. are more frequently impacted by third party software component |
| 8 | updates. Due to this dependency, updating a single third party software component |
| 9 | can break an entire software product. Reasons include parallel conflicting updates of |
| 10 | third party software components, updating to an unstable version, or updating to a |
| 11 | major stable version without an impact analysis. The objective of this paper is to |
| 12  13 | reduce the risk of breaking updates by reviewing software release patterns and  proposing update scheduling recommendations. |
| 14 | **Abstract** |
| 16 | **Keywords :**Software Updates, Software Dependencies, Software Release Schedule. |
|  |  |

**Referencia:**

Solomon Berhe, Marc Maynard & Foutse Khomh.(2020). Software Release Patterns: when is it a good time to update a software component*? .The 3rd International Conference on Emerging Data and Industry.4.0(EDI40).*<http://creativecommons.org/licenses/by-nc-nd/4.0/>

|  |  |
| --- | --- |
| Nº línea |  |
| 1 | **An open source hp-adaptive discontinuous Galerkin finite element** |
| 2 | **solver for linear elasticity.** |
| 3 | **Abstract** |
| 4 | Open source codes are a key ingredient to greater research integrity and |
| 5 | accountability in computational science and engineering. However, many of these |
| 6 | codes have not been developed with modification of the base code as their |
| 7 | primary consideration. Existing codes may provide an environment for researchers to |
| 8 | quickly test out theirideas under different physical conditions in a high level way but |
| 9 | they are not always ideal for those interested in the development of numerical |
| 10 | methods. The majority of existing open source discontinuous Galerkin finite element |
| 11 | codes are written in C++ and there is a significant learning curve for junior researchers |
| 12  13  14  15  16 | to adopt, understand and modify the underlying code/routines. This paper presents an open source hp-adaptive discontinuous Galerkin finite element code written in  MATLAB that has been explicitly designed to make it easy for users, especially  MSc/PhD-level researchers, to understand the method and implement new ideas  within the core code. Although the code is focused on solving problems in linear  elasticity, it is straightforward to modify it to solve other physical equations. |
| 17 | **Abstract** |
| 18 | **Keywords :** Open source software MATLAB Discontinuous galerkin finite elements Linear elasticity hp-Adaptivity Researcher development. |
|  |  |

**Referencia:**

Thomas Wiltshire, Robert E. Bird, William M. Coombs & StefanoG.(2022). An open source hp-adaptive discontinuous Galerkin finite element solver for linear elasticity. *Advances in Engineering Software. Department of Engineering,Lower Mountjoy,South Rd,Durham DH1 3LE,UK* <https://doi.org/10.1016/j.advengsoft.2022.103>

* ESTUDIANTE: **JOSE AMANDO MORA RIVAS** 29.634.375