

NEWSLETTER #2

GECKO is a Horizon Europe MSCA Doctoral Network that started on 1st January 2023. The main objective of the GECKO project is to bridge the existing gap between the CAD and the computational models (CAE) and integrate them within the industrial workflow by building “Design for IGA -type discretization workflows”

Building on an excellent consortium including top academic institutions and sector leading industrial partners, GECKO aims at enhancing the adoption of the technology within commercial solvers and adapting existing open source frameworks so that they can hook into the industrial practice and thus remain relevant in the foreseeable future.



Conferences



On 21st of March 2025 DC10 Wei Li attended and presented at the MSCA 2025 conference. Between 6-8 May 2025. DC8 Doğuhan Kılıçarslan, and DC9 Philip Le attended and presented at the NOVEM 2025 conference, following that conference. DC8 also attended the Forum Acusticum 2025 conference between 23-26 June 2025. DC4 Juan Ignacio Camarotti attended and presented at the IGA 2025 conference



between 14-17 September. DC5 Maram Alkhlaifat attended the BETA CAE conference between 25-27 June 2025. Lastly, DC6 Lucas Venta Viñuela, and DC7 Angelos Paganos attended and presented at the YIC 2025 conference between 17-19 September 2025.

Secondments



DC9 Philip Le joined TUM colleagues for his academic secondment between 1st of February to 30th of July 2025, during which he worked on incorporating trimmed geometries in his workflows as well as collaborated with DC4 Juan Ignacio Camarotti about co-simulation strategies.

DC1 Nicolò Antonelli, DC5 Maram Alkhlaifat, DC6 Lucas Venta Viñuela, and DC8 Doğuhan Kılıçarslan joined together for their industrial secondments at BETA CAE between 1st of March to 30th of May 2025 during which they were trained about the capabilities of ANSA, as well as collaborate with each other.

Events



The project also emphasizes continuous learning through specialized learning sessions. All DC's had the opportunity to attend social and technical courses provided by KU Leuven and BETA CAE in Thessaloniki, Greece between 20-22 May 2025. DC's received essential communication and leadership soft skill training, as well as, a hands-on training with the ANSA pre-processor.



During the training event, DC's also shared their recent research developments with the supervisors of the GECKO consortium to increase collaboration.

Publications

Since November 2024, following DC's shared their work on top tier academic journals with the respective titles:

- DC1 Nicolò Antonelli & DC3 Andrea Gorgi:

Isogeometric analysis for non-Newtonian viscoplastic fluids: challenges for non-smooth solutions.

👉 [Read the article in ScienceDirect](#) ➡

- DC3 Andrea Gorgi:

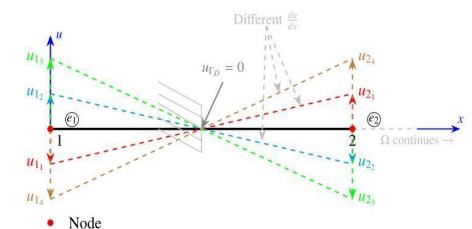
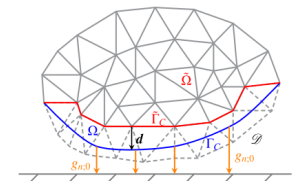
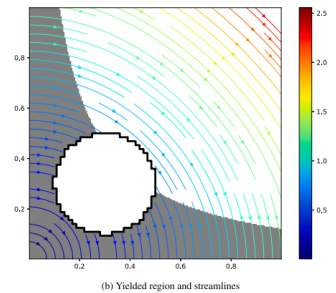
The Shifted Boundary Method for contact problems.

👉 [Read the article in ScienceDirect](#) ➡

- DC4 Juan Ignacio Camarotti:

A non-intrusive approach for the imposition of strong Dirichlet boundary conditions in unfitted boundary meshes.

👉 [Read the article in Springer](#) ➡



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