

ANTOINE CHAN-LOCK

SIMULATION RESEARCHER

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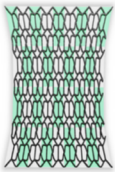
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SUMMARY

Computer scientist, Researcher, PhD student with +8 years of diversified experience in coding, modelling and simulation within academia and industry. Leverages strong mathematical knowledge, and years of practice to solve state of the art problems. Seeking the next professional challenge as intern in the simulation industry.

PUBLICATIONS



High-Order Elasticity Interpolants for Microstructure Simulation (2022)

Chan-Lock Antoine, Perez Jesus, Otaduy Miguel
CGF, Proc. of ACM SIGGRAPH/Eurographics SCA

CORE COMPETENCIES

- **Physically based animation:**
Microstructures, soft bodies, thin shells
- **Numerical methods:**
FEM, Meshless, optimization
- **Homogenization strategies**
- **Prototyping implementation:**
Matlab, Python (numpy, scipy, autograd)
- **High performance implementation:**
C++ (Eigen, OpenMP)
- **3D modelling and rendering:** Blender
- **Web:** HTML, CSS, Django, Static generators
- **Languages:** French (native), English (fluent certified), Spanish (fluent certified)

REFERENCES

Miguel Otaduy, PhD supervisor (URJC)
miguel.otaduy@urjc.es

EXPERIENCE

Simulation Researcher, Apr 2019 - present

MULTIMODAL SIMULATION LAB, MADRID, SPAIN

- Investigation focusing on homogenization strategies

Intern Simulation Engineer, Jan-Mar 2017

INOVERTIS, DONZERE, FRANCE

- Heat transfer simulation for industrial machines
- Automation of Eurocode (safety standards for structural design)

Miscellaneous Projects

FREELANCE AND ACADEMIC

- Artificial reef CFD simulation
- Radiation simulation with in Fortran 77
- Thermal pile simulation for construction with Abaqus
- Website management
- Teaching (FEM, Continuum mechanics, C++)

EDUCATION

Universidad Rey Juan Carlos, 2019 - Present

PHD IN SIMULATION, MADRID, SPAIN

Focusing on numerical coarsening methods for high efficiency elastic simulations, design of stable non linear elasticity models

UPC, 2018-2019

ERASMUS EXCHANGE : INTERNATIONAL CENTRE FOR NUMERICAL METHODS IN ENGINEERING, BARCELONA, SPAIN

Concentration: advanced computation methods like meshfree, X-FEM, discontinuous Galerkin, phase fields, and NURBS methods.

SeaTech Engineering School, 2016-2019

ADVANCED ENGINEERING MASTER DEGREE IN MODELLING AND SIMULATION, TOULON, FRANCE

Concentration: fluid mechanics, solid mechanics, numerical methods, FEM, structural engineering, CFD, continuum mechanics, non linear models

Université de Toulon, 2014-2016

BCS, TOULON, FRANCE

Concentration: mathematics, physics, computer sciences