



Clara B. Picallo, Ph.D.

Technology Specialist

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Overview

About Clara

Clara B. Picallo, Ph.D., is a technology specialist in the Munich office of Fish & Richardson P.C. She focuses her practice on patent prosecution support in computer technologies. She has advanced knowledge of computer science topics, particularly computer-aided design and engineering across multiple domains, and is experienced in dealing with patentability issues relating to computer-implemented inventions. Her technical experience includes computer-aided design and engineering, automotive, aerospace, business methods, solar and wind energy production, petrochemistry, and 3D printing. During her PhD and career as a researcher, she developed simulations for the analysis of fracture mechanics, biological membranes and nanofluidics, among other topics. Prior to joining the firm, Dr. Picallo was a patent examiner at the European Patent Office (EPO) in the field of computer-aided design. Her seven years of experience at the EPO gave her broad expertise in computer science topics in a variety of fields and in evaluating the technical character of computer-implemented inventions.

Focus Areas

Services

- Patent

Industries

- Electrical and Computer Technology

- Energy and Petrochemical
- Manufacturing
- Software

Education

Ph.D., Computational Physics, University of Cantabria, Santander (2010)

M.S., Computational Physics, University of Cantabria, Santander (2006)

Insights

Selected Publications

Barrio, R.A., Varea, C., Alarcón, T., **Picallo, C.B.**, Hernandez-Machado, A., Dynamics of Z-ring formation in liposomes *Proceedings of the International Symposium on Mathematical and Computational Biology (BIOMAT 2014)*, 1 (2015)

Picallo, C.B., Barrio, R.A., Varea, C., Alarcón, T., Hernandez-Machado, A., Phase-field modelling of the dynamics of Z-ring formation in liposomes: Onset of constriction and coarsening. *Phys. J. E* 38, 61 (2015)

Picallo, C.B., Gravelle, S., Joly, L., Charlaix, E., Bocquet, L., Nanofluidic osmotic diodes: theory and molecular dynamics simulations *Phys. Rev. Lett.* 111, 244501 (2013).

Picallo, C.B., Riecke, H., Adaptive oscillator networks with conserved overall coupling: Sequential firing and near-synchronized states *Rev. E* 83, 036206 (2011).

Picallo, C.B., A mesoscopic study of plasticity and fracture in disordered materials PhD Thesis. Supervised by Dr. Juan M. López, Universidad de Cantabria (2010).

Picallo, C.B., López, J.M., Zapperi, S., Alava, M.J., From brittle to ductile fracture in disordered materials, *Rev. Lett.* 105, 155502 (2010)

Picallo, C.B., López, J.M., Zapperi, S., Alava, M.J., Optimization and plasticity in disordered media, *Phys. Rev. Lett.* 103, 225502 (2009)

Picallo, C.B., López, J.M. Energy dissipation statistics in the random fuse model, *Rev. E* 77, 046114 (2008)

Languages

- English
- German
- French
- Spanish