

# Call for Contributions

## Submission:

1. **Inform the Chair:** with the Title of your Contribution

2. **Submission URL:**

<https://www.iariasubmit.org/conferences/submit/newcontribution.php?event=SIGNAL+2018+Special>

Please select Track Preference as **FCA**

Special track

## **FCA: Fractional Calculus and Applications**

### **Chairs and Coordinators**

Prof. Dr. Manuel Duarte Ortigueira

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along with

**SIGNAL 2018**, The Third International Conference on Advances in Signal, Image and Video Processing

May 20, 2018 to May 24, 2018 - Nice, France

<http://www.aria.org/conferences2018/SIGNAL18.html>

The Fractional Calculus is a generalization of the traditional calculus that leads to similar concepts and tools as standard differential calculus, but with a much wider applicability. In the last two decades, fractional differentiation has played a very important role in various fields such as mechanics, electricity, chemistry, biology, economics, and notably, control theory and signal and image processing. Its “basic building block” is the derivative of non-integer order unifying derivation and integration. This allowed the generalization of important tools like impulse response, transfer function and frequency response.

The success of the fractional methodology is unquestionable with many applications, namely modeling, curve fitting, filtering, pattern recognition, edge detection, identification, stability, controllability, observability, and robustness, are linked to long-range dependence phenomena. Also the advantages of fractional filters led to an increment in the research of new design methods and applications.

**Prospective authors** are invited to submit original papers on topics including, but not limited to:

- Continuous-time fractional derivatives/integrals
- Discrete-time fractional derivatives/integrals
- Signal analysis and filtering with fractional tools
  - Restoration
  - Reconstruction
  - Analysis of fractal noises
  - Fractional modeling
  - Fractional system identification
- Signal Fractional order control
- Linear/Nonlinear methods

- Multivariable methods
- Image processing using methods based on the fractional calculus
- Numerical methods for fractional calculus

### **Important Datelines**

- Inform the Chairs: As soon as you decided to contribute
- Submission: ~~February 7, 2018~~ **March 28, 2018**
- Notification: ~~March 7, 2018~~ **April 5, 2018**
- Registration: ~~March 21, 2018~~ **April 10, 2018**
- Camera ready: ~~April 2, 2018~~ **April 20, 2018**

*Note: These deadlines are somewhat flexible, providing arrangements are made ahead of time with the chair.*

### **Contribution Types**

- Regular papers [in the proceedings, digital library]
- Short papers (work in progress) [in the proceedings, digital library]
- Posters: two pages [in the proceedings, digital library]
- Posters: slide only [slide-deck posted on [www.iaria.org](http://www.iaria.org)]
- Presentations: slide only [slide-deck posted on [www.iaria.org](http://www.iaria.org)]
- Demos: two pages [posted on [www.iaria.org](http://www.iaria.org)]

### **Paper Format**

- See: <http://www.iaria.org/format.html>
- Before submission, please check and comply with the editorial rules: <http://www.iaria.org/editorialrules.html>

### **Publications**

- Extended versions of selected papers will be published in IARIA Journals: <http://www.iariajournals.org>
- Print proceedings will be available via Curran Associates, Inc.: <http://www.proceedings.com/9769.html>
- Articles will be archived in the free access ThinkMind Digital Library: <http://www.thinkmind.org>

### **Paper Submission**

<https://www.iariasubmit.org/conferences/submit/newcontribution.php?event=SIGNSAL+2018+Special>

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### **Registration**

- Each accepted paper needs at least one full registration, before the camera-ready manuscript can be included in the proceedings.
- Registration fees are available at <http://www.iaria.org/registration.html>

### **Contacts**

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