

# Thematic Research Programme

## Current Trends in Geometric Methods in Natural Sciences

2 September - 20 December 2019

ICMAT, Madrid

[www.icmat.es/RT/2019/CTIGMINS/](http://www.icmat.es/RT/2019/CTIGMINS/)

### Seminar

#### MINIMIZERS AND OTHER STEADY EULER SOLUTIONS ON SASAKIAN 3-MANIFOLDS

**SPEAKER:** Radu Slobodeanu (University of Bucharest)

**DATE:** Thursday, 3 October 2019 - 15:00

**VENUE:** Aula Gris 1, ICMAT

**ABSTRACT:** We provide the answer to the question whether the Reeb vector field of any Sasakian 3-manifold is an  $L^2$ -energy minimizer in its  $SDiff$ -orbit, as it is the case of the Hopf vector field on the round 3-sphere. In addition we present some new (unpublished) steady Euler solutions on the round 3-sphere. Among them there is a family of non-vanishing Beltrami fields, whose associated contact structure will be investigated in the last part of the talk from the topological point of view.

#### Organizing committee:

**María Barbero** (UPM)  
**Leonardo Colombo** (ICMAT-CSIC)  
**Alberto Enciso** (ICMAT-CSIC)  
**David Martín de Diego** (ICMAT-CSIC)  
**Francisco Presas** (ICMAT-CSIC)  
**Cristina Sardón** (ICMAT-CSIC)  
**Piergiulio Tempesta** (ICMAT-UCM)

**Contact:** [ctigmins@icmat.es](mailto:ctigmins@icmat.es)

#### Scientific committee:

**Marco Castrillón** (UCM)  
**Alberto Ibort** (ICMAT-UC3M)  
**Manuel de León** (ICMAT-CSIC)  
**Giuseppe Marmo** (U. Federico II, Napoli)  
**Eva Miranda** (UPC-D. Vinculada ICMAT)  
**Daniel Peralta** (ICMAT-CSIC)

#### Program coordinator:

**Manuel de León** (ICMAT-CSIC)