

# Sponsor & Exhibitor Prospectus

February 16 - 19, 2021



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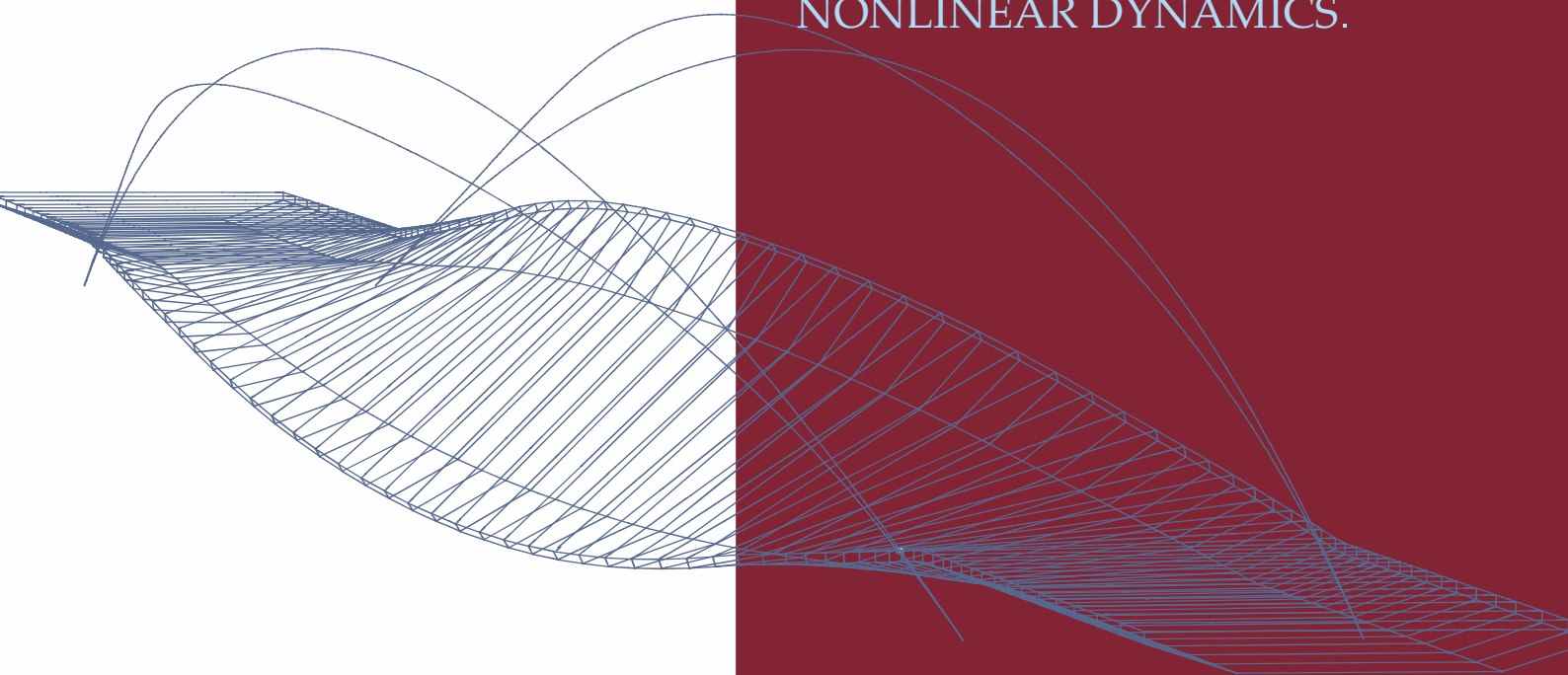
## **NODYCON 2021**

Second International  
Nonlinear Dynamics  
Conference

<https://nodycon.org/2021/>

# About NODYCON2021

**NODYCON2021** is a forum where researchers, professionals and industry technical leaders come together to present and discuss recent progress on a rich spectrum of topics covered by **NONLINEAR DYNAMICS**.



The Second International Nonlinear Dynamics Conference intends to foster the tradition of an illustrious conference series that was originally launched by Prof. A. H. Nayfeh in 1986 at Virginia Tech as the Nonlinear Vibrations, Stability and Dynamics of Structures Conference.

The Conference series was launched in 2019 involving the participation of 400 delegates from 68 countries.

Due to the COVID-19 outbreak, **NODYCON 2021** will be an online (virtual) conference. **NODYCON 2022** will be held as a live conference June 19-22, 2022.



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# Topics

## Dynamics of structures, systems and devices

- Multi-scale dynamics: coexistence of multiple time/space scales, large system dynamics;
- Experimental dynamics: benchmark experiments, experimental methods, instrumentation techniques, measurements in harsh environments, experimental validation of nonlinear models;
- Dynamics of structures/industrial machines/equipment/facilities (e.g., cable transportation systems, suspension bridges, cranes, vehicles, etc.);
- Composite structures: multi-layer, functionally graded, thermal loading;
- Nonlinear interactions and energy transfers: parametric vibrations with single/multi-frequency excitations, multiple external and autoparametric resonances;
- Nonlinear system identification: parametric/nonparametric identification, data-driven identification;
- Fluid/structure interaction.

## Computational dynamics

- Space/time reduced-order modeling: enhanced discretization methods, center manifold reduction, nonlinear normal modes, normal forms;
- Fractional-order system dynamics;
- Computational techniques: efficient algorithms, use of symbolic manipulators, integration of symbolic manipulation and numerical methods, use of parallel processors, advances in path following of ODEs and PDEs;
- Multibody dynamics: modeling and computational methods for rigid and flexible multibody system dynamics, impact and contact mechanics, tire modeling, railroad vehicle dynamics, computational multibody dynamics.

## Wave propagation, solitons, kinks, breathers

- Solution methods for PDEs: Lie groups, Hirota's method, perturbation methods, etc;
- Nonlinear waves in media (granular materials, porous materials, materials with memory).



# Topics

## Nonsmooth and retarded dynamics

- Nonsmooth dynamics: systems with impacts, free play, stick-slip, friction, hysteresis;
- Nonlinear systems with time and/or space delays;
- Stability of delay differential equations,

## Nonlinear dynamics and control

- Influence of nonlinearities on vibration control systems;
- Passive, semi-active, active control of structures and systems;
- Synchronization;
- Network dynamics control (multi-agent systems, leader-follower dynamics, swarm dynamics, biological networks dynamics);
- Human-machine interaction.

## Ecosystem dynamics

- Ecosystem dynamics, social media dynamics (user behavior dynamics in multi-messages social hotspots, prediction models), financial engineering, complexity in engineering).

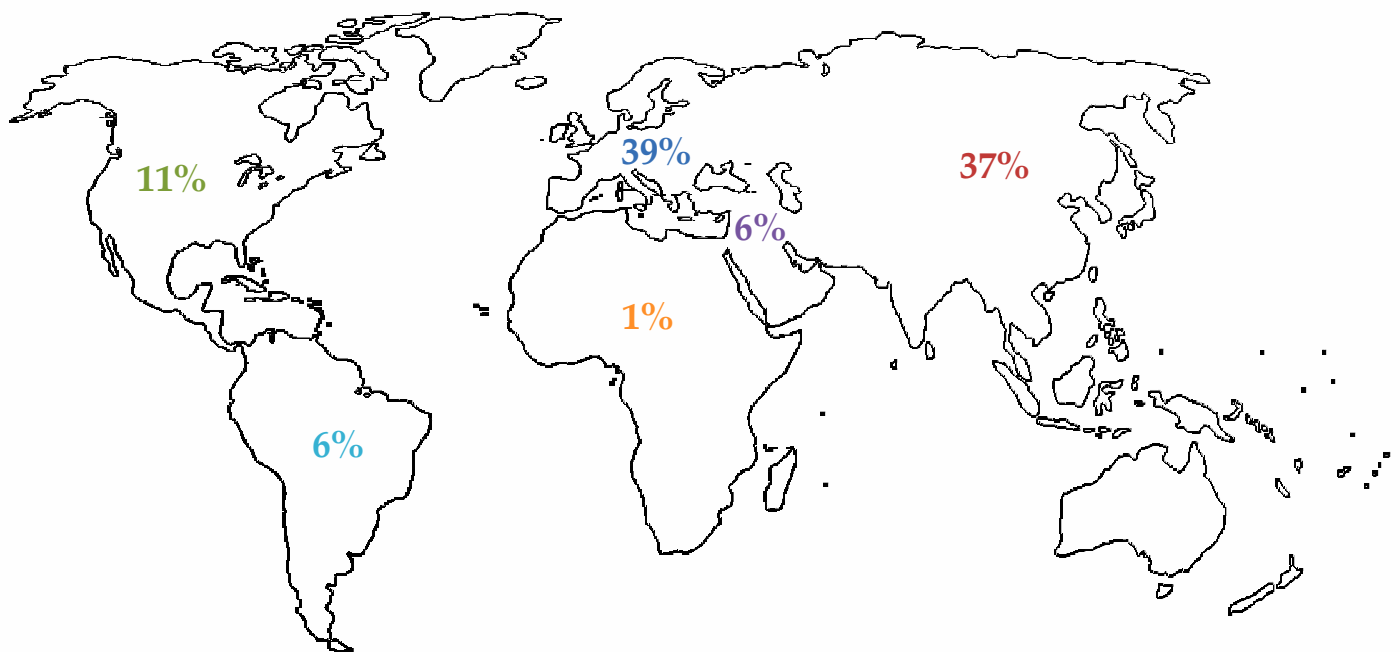
## New topics and trends

- Biomechanics applications: DNA modeling, heart dynamics, walking dynamics, capsule robots, jellyfish-like robots, nanorobots;
- Nanocomposite structures (e.g., carbon nanotube/polymer composites, composites with functionalized nanoparticles);
- 0D,1D,2D,3D nanostructures;
- Metamaterial structures;
- MEMS/NEMS sensors and actuators.

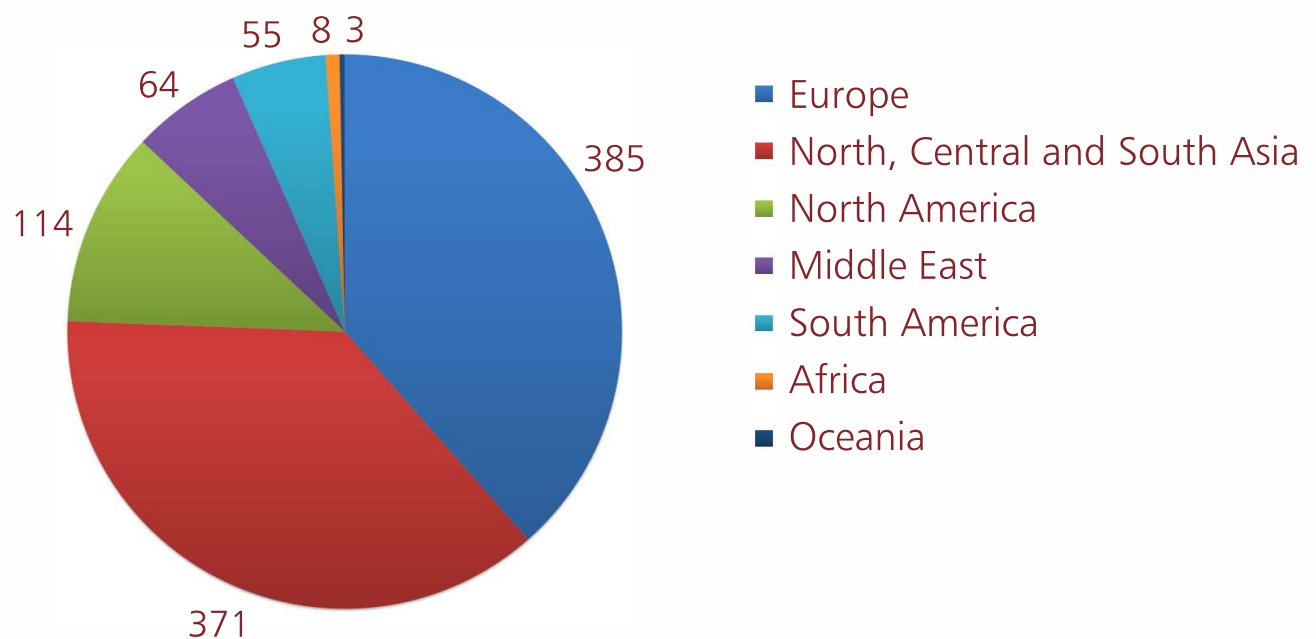
# Participants

up to July 24, 2020

340 contributions



7000 authors





# Sponsorship packages

Gain visibility in the Nonlinear Dynamics leading community

## PLATINUM

€1000

- 1 Full Conference Registration
- 1 Full Page Ad in the Conference Program
- Company banners in the conference website
- 5 minute plenary presentation or video during the plenary sessions
- Your platinum sponsorship will be acknowledged in the NODYCON2021 proceedings published by Springer

## GOLD

€800

- 1 Full Conference Registration
- 1 Full Page Ad in the Conference Program
- Company banners in the conference website
- 3 minute plenary presentation or video during the plenary sessions
- Your gold sponsorship will be acknowledged in the NODYCON2021 proceedings published by Springer

## SILVER

€500

- 1 Full Conference registration
- 1 Half Page Ad in the Conference Program
- Company banners in the conference website
- Your silver sponsorship will be acknowledged in the NODYCON2021 proceedings published by Springer

## BRONZE

€350

- 1 Half Page Ad in the Conference Program
- Company banners in the conference website
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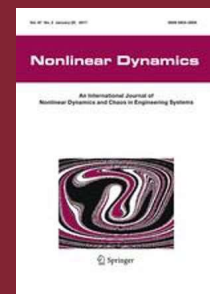
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