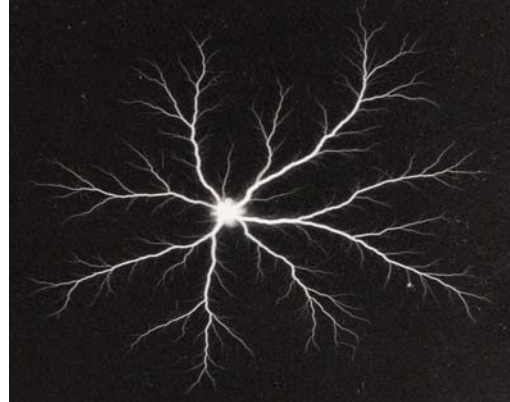


## Laborator de dinamici neliniare si haos (pentru activitate de cercetare și didactică) - CAMERA BN133

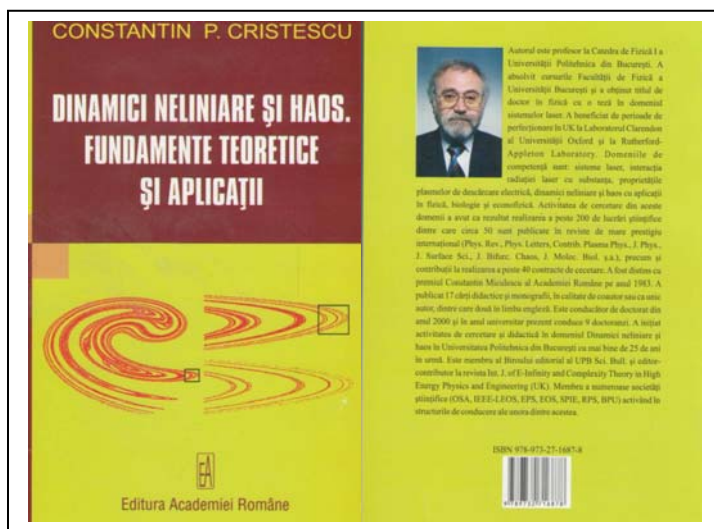
Persoane care lucrează în acest laborator :

- **Prof. C.P. Cristescu** (responsabil laborator)
- Prof. A. Lupascu
- Conf. C. Stan
- Sef Lucrari E. Scarlat
- Ing. M. Toma
- doctoranzi
- studenti master
- studenti care lucreaza la teza de licență.



Colaborari cu instituții din țară și străinătate

- Universitatea Al. I. Cuza Iași
- Universitatea Tehnică Ghe. Asachi, Iași
- Institutul Național de Optoelectronică, București (Măgurele)
- University of Oxford, Clarendon Laboratory, United Kingdom
- Max Planck Institute of Microstructure Physics, Halle, Germany
- Fachbereich Physik, Halle-Wittenberg University, Germany
- Institute fur Ionenphysik, Innsbruck, Austria
- Middle Eastern Technical University, Ankara, Turkey



Monografiile și cărți de specialitate ale membrilor laboratorului:

1. **Constantin P. Cristescu** traducere după M. Gutzwiller, Chaos in Classical and Quantum Mechanics, Ed. Tehnică Bucuresti, 1998
2. **Constantin P. Cristescu**, Dinamici neliniare și haos. Fundamente teoretice și aplicații, Ed. Academiei Române, 2008
3. **Cristina Stan, Constantin P. Cristescu** Dinamici neliniare, haos și zgomot în sisteme experimentale, Ed. MatrixRom, 2009

Lucrari recente relevante ale membrilor grupului de cercetare din acest laborator:

- **Cristescu CP, Stan C, Scarlat E,**  
The dynamics of exchange rate time series and the chaos game  
**Physica A: Statistical Mechanics and its Applications 388:**  
**4845-4855 2009**
- **Stan, C; Cristescu, CP; Alexandroaei, D, Agop M,**  
Stochastic resonance and vibrational resonance in an excitable  
system: The golden mean barrier  
**CHAOS SOLITONS & FRACTALS 41(2): 727-734 2009**
- **Stan C, Cristescu CP, Agop M**  
Golden mean relevance for chaos inhibition in a system of two coupled  
modified van der Pol oscillators  
**CHAOS SOLITON AND FRACTALS 31 (4): 1035-40 FEB 2007**
- **Scarlat E, Stan C, Cristescu CP**  
Self-similar characteristics of the currency exchange rate in an  
economy in transition  
**Physica A: Statistical Mechanics and its Applications 379 (1),**  
**pp. 188-198**
- **Alexandroaei D, Stan C, Cristescu CP, Lupascu A**  
A frequency-domain analysis of the order-to-disorder transitions of a  
perturbed double layer dynamics  
**JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS**  
**9: 2960-2962 2007**
- **Stan C, Cristescu CP, Alexandroaei D**  
Temporal phase synchronization in a double electrical discharge  
plasma  
**JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS**  
**8 (1): 152-155 FEB 2006**
- **Cristescu CP, Stan C, Alexandroaei D**  
Dynamic control by sinusoidal perturbation and by Gaussian noise of a  
system of two nonlinear oscillators: Computation and experimental  
results  
**PHYSICAL REVIEW E 70 (1): Art. No. 016613 Part 2 JUL 2004**
- **Cristescu CP, Stan C, Alexandroaei D**  
Control of chaos by random noise in a system of two coupled  
perturbed van der Pol oscillators modeling an electrical discharge  
plasma  
**PHYSICAL REVIEW E 66 (1): Art. No. 016602 Part 2 JUL 2002**
- **Stan C, Cristescu CP, Alexandroaei D**  
Modelling of the temporal behaviour of the inter-anode current  
in a system of two coupled electrical discharges  
**CONTRIBUTIONS TO PLASMA PHYSICS 42 (1): 81-89 2002**