

Please send this report to the Secretary of the European Mechanics Council, Professor Bengt Lundberg, School of Engineering, Uppsala University, Box 534, S-751 21 Uppsala, Sweden, within one month after the Colloquium.

### General

Euromech Colloquium No: 308

Title: Chaos and Noise in Dynamical Systems

Co-Chairmen: T Kapitaniak, J Brindley

Place and country: Spala, Poland

Dates: 20 - 25 September 1993

### Finance

The conference fee £50 included a book of abstracts, excursion, coffee during breaks.

Funding: Supported by: The Royal Society, London; Ministry of Education, Warsaw;  
The Soros Foundation, New York.

Accommodation (type and cost): Double and single rooms £225

Meals: Full board

### Participation

Total number of participants: 44

Distribution of participants by country.

Code	Country	Number	Code	Country	Number
A	Austria	_____	IRL	Ireland	_____
B	Belgium	_____	LT	Latvia	_____
BG	Bulgaria	_____	LV	Lithuania	2
CH	Switzerland	_____	N	Norway	_____
CS	Czechoslovakia	3	NL	Netherlands	_____
D	Germany	2	P	Portugal	_____
DK	Denmark	2	PL	Poland	16
E	Spain	_____	R	Rumania	_____
EE	Estonia	_____	S	Sweden	_____
F	France	_____	SF	Finland	_____
GB	Great Britain	5	YU	Yugoslavia	_____
GR	Greece	_____	CIS	CIS	14
H	Hungary	_____	-	Others	_____
I	Italy	_____			

Is there need of another colloquium on the same subject? Which year? Yes - 1995

Scientific report.

During the Colloquium 35 lectures were presented of 30 or 15 minutes duration. They covered all topics of the Meeting and can be considered as a significant contribution to dynamical systems theory.

The list of 30 minute talks is printed below:

1. V. S. Anishchenko, A. B. Neiman, M. A. Safonova and I. A. Khovanov; Multi-frequencies stochastic resonance.
2. K. Czołczyński and K. Marynowski; Sub- and supercritical Hopf bifurcation in a rotor subjected to a follower force.
3. K. Czołczyński; Stability of flexibly mounted, self-acting gas journal bearings.
4. S. G. Dolinichuk and V.I. Zadorozhnii; Spatiotemporal chaos in the nonlinear three-wave interaction via influence of boundaries.
5. S. Furta; Non-integrability of perturbed twist mappings and chaotic phenomena.
6. S.V. Gonchenko and L.P. Shil'nikov; On the structure of non-wandering sets of two-dimensional diffeomorphisms with homoclinic tangencies.
7. K. Janicki and W. Szemplinska-Stupnicka; Bifurcations of subharmonics in a nonlinear oscillator: perturbation methods versus numerical experiment.
8. C. Knudsen; Noninvertible maps in the plane.
9. L. Kocarev; On the dynamics of diffusively coupled systems.
10. Z. Kotulski; Wave propagation in randomly stratified media and Anderson localization.
11. A. J. Maciejewski; New methods for numerical integration of differential equations in the presence of first integrals.
12. V. L. Maistrenko, Yu. Maistrenko and I. Sushko; Order for appearance of attractors in families of piecewise linear maps.
13. A. Namajunas and A. Tomasevicius; Estimating pointwise dimensions from dynamical Poincare maps by means of analogue technique.
14. M. Paleta, L. Socha and G. Zasuha; Comparison of simulation methods for obtainig characteristics of response of stochastic dynamical systems.
15. F. Peterka and S. Ciperka; Chaotic motion in mechanical systems with impacts.

16. P. Pokorny and M. Marek; Origin and dimension of strange nonchaotic attractors.
17. E. Yu. Romanenko and A. N. Sharkovsky; Self-stochasticity in dynamical systems as a scenario for deterministic spatio-temporal chaos.
18. S. Schaub; Interpolation with inhomogeneous grids: an extension of the generalized cell mapping method.
19. J. von Stamm, Th. Buzug and G. Pfister; Instabilities and chaos in Taylor-Couette flow.
20. M. Szydłowski; Sectional curvature in the dynamics of N-nody systems.
21. A. Tylikowski; Stochastic stability of rotating composite shafts with Brazier's effect.
22. G. Lythe; Noise induced dynamical bifurcations.