

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: 320

Title: Multibody Systems: Advanced Algorithms and Software Tools

Co-Chairmen: Prof. Dr.-Ing. Dr. h. c. Werner Schiehlen

Place and country: Prague, Czech Republic

Dates: June 6-8, 1994

Finance

The conference fee 60 ecu included organization costs, booklet of abstracts, refreshments, get-together and dinner, lunches, local travel costs

Funding: none

Accommodation (type and cost): university hotel, 24 ecu/night

Meals: university mensa, 1 ecu/meal

Participation

Total number of participants: 40

Distribution of participants by country:

<u>Code</u>	<u>Country</u>	<u>Number</u>	<u>Code</u>	<u>Country</u>	<u>Number</u>
A	Austria	_____	IRL	Ireland	_____
B	Belgium	3	LT	Latvia	_____
BG	Bulgaria	_____	LV	Lithuania	_____
CH	Switzerland	_____	N	Norway	_____
CS	Czechoslovakia	9	NL	Netherlands	_____
D	Germany	12	P	Portugal	_____
DK	Denmark	_____	PL	Poland	3
E	Spain	3	R	Rumania	_____
EE	Estonia	_____	S	Sweden	3
F	France	3	SF	Finland	_____
GB	Great Britain	_____	YU	Yugoslavia	_____
GR	Greece	_____	CIS	CIS	_____
H	Hungary	_____	USA	Others	3
I	Italy	1			

Is there need of another colloquium on the same subject? Which year? YES 1996

Scientific Report

There were 50 submitted papers and 42 from them have been selected for presentation at the Euromech 320. They have been grouped into 12 sessions covering the all current topics of multibody systems: Multibody System Dynamics I-II, Flexible Multibody Systems I-III, Simulation Techniques I-II, DAE-Solvers, Fast Algorithms, MBS Codes, Mechatronic Systems, Contact and Impact Problems, Applications.

The most important current topics of multibody systems have been discussed at the Round-table discussion "Future trends in multibody dynamics" covering the topics:

- 1) Better comparison between or selection of appropriate multibody system code in specific applications by standardized input data.
- 2) Modeling of flexible systems by FEM or MBS approaches.
- 3) Multibody systems include mechatronics or vice versa
- 4) New opportunities for real time multibody system simulation by parallel computing
- 5) The rule of multibody systems in education

Both the presented papers and the Round-table discussion demonstrated that multibody systems is and will be a topic under rapid development and with important applications.

I should like to transfer the meaning of the Euromech participants that this Euromech 320 was very successful from all points of view (scientific program and content, organization, social events, city of taking place). Such opinion has been presented many times by many participants during the Euromech. They suggested to organize similar Euromech dealing with the same topic of Multibody Systems again in Prague in future. The success of this Euromech was also that 4 American scientists submitted and presented papers without previous direct advertising in USA.

Michael Balafoutis