

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: 322

Title: Cracks in Coated and Layered Materials

Co-Chairmen: G.F. Barenblatt

Place and country: Riksgränsen Sweden

Dates: 21-23 June

Finance

The conference fee 1000 SEK included

Funding:

Accommodation (type and cost): Double rooms 245:-/day

Meals: Breakfast, Banquet 960:-

Participation

Total number of participants: 25

Distribution of participants by country:

Code	Country	Number	Code	Country	Number
A	Austria	_____	IRL	Ireland	1
B	Belgium	_____	LT	Latvia	_____
BG	Bulgaria	_____	LV	Lithuania	_____
CH	Switzerland	_____	N	Norway	_____
CS	Czechoslovakia	_____	NL	Netherlands	_____
D	Germany	2	P	Portugal	_____
DK	Denmark	_____	PL	Poland	1
E	Spain	_____	R	Rumania	_____
EE	Estonia	1	S	Sweden	9
F	France	1	SF	Finland	_____
GB	Great Britain	2	YU	Yugoslavia	_____
GR	Greece	_____	CIS	CIS	_____
H	Hungary	_____	-	Others	7
I	Italy	1			

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

Experts on fracture mechanics and materials science were invited to discuss recent achievements in analyses of fracture in thin films of metals, ceramics and polymers deposited on mechanical and electronic components.

All papers concerned how crack growth is affected by film, substrate and interface properties. Non-linear phenomena occurring when cracks approach or grow parallel to a bi-material interface was discussed. Work on crack initiation in thin films was also presented.

Both analytical, numerical and experimental investigators participated. The number of presentations was 18. Of these 9 can be considered to be of fundamental theoretical nature, 4 described experimental work and 5 concerned applications.

Regarding mathematical methods 9 can be considered to be mainly based on numerical methods and 5 were based on analytical methods. The remaining 4 were descriptive and non-mathematical.