



EXTREME ULTRAVIOLET LITHOGRAPHY

Second International Symposium

Antwerp, 30 September-2 October 2003

Opening

Robert A. Hartman



Welcome !!

- YOU
- Symposium
- EUVL
- Key note address



Welcome !!

- **YOU**
- **Symposium**
- **EUVL**
- **Key note address**

Who are you ?

- **You are here with 323 persons** (per 8:00 hours)
 - 30 % from the Americas
 - 28 % from Asia
 - 42 % from Europe
- **You have submitted more than 170 abstracts**






















Welcome !!

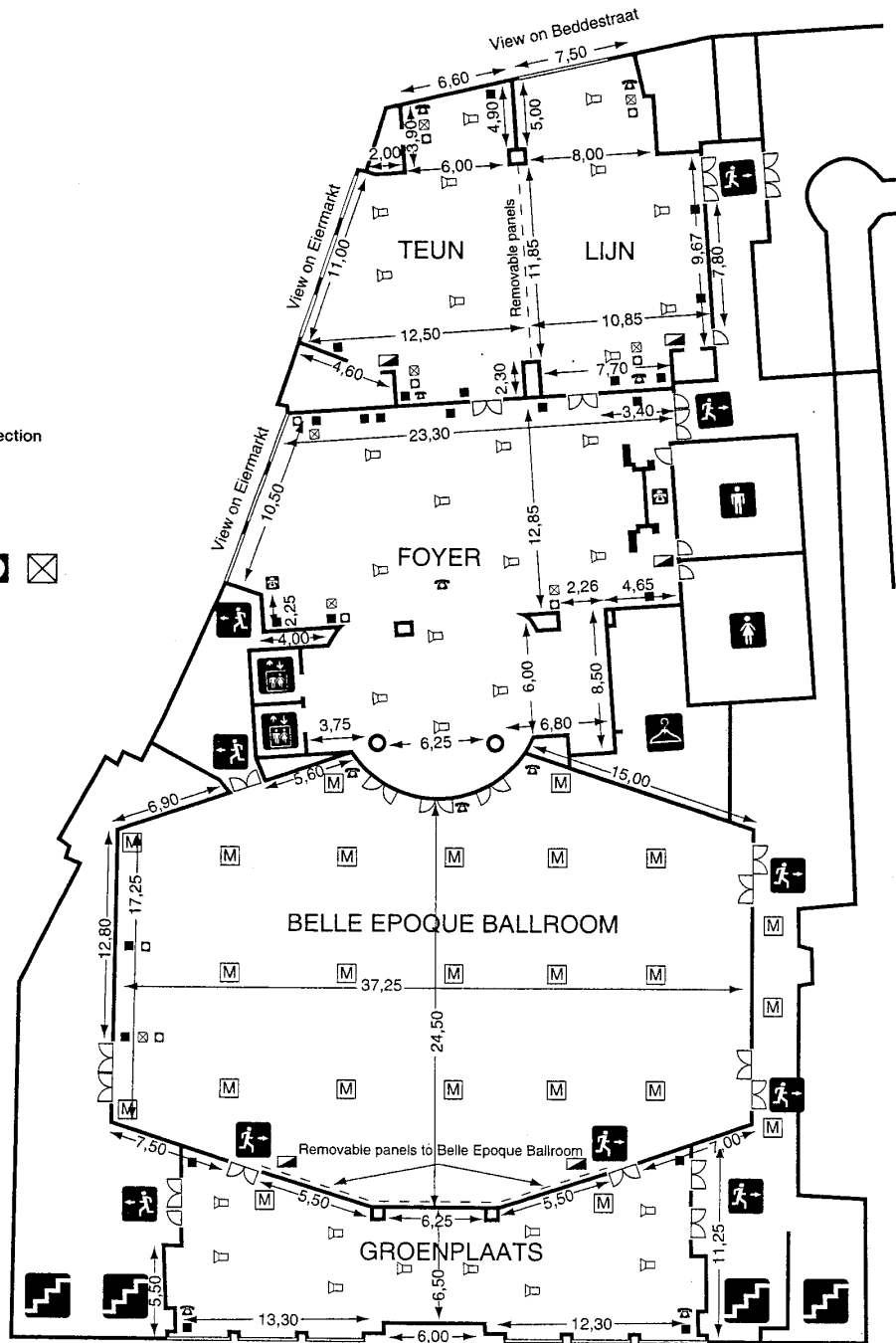
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EXTREME ULTRAVIOLET LITHOGRAPHY

Hilton 3rd Floor

-  Remote lights
-  Line in
-  Ceiling Mounted PA Speaker
-  Microphone Socket
-  Airco Control
-  Telephone / Fax connection
-  220 V connection
-      
-  Toilets
-  Elevators
-  Emergency exit
-  Stairs
-  Pay Phone
-  Cloakroom





Symposium

- 50 papers in 9 sessions
- All issue of the top ten list of the first Symposium are addressed

EUV Lithography: Critical Issues (10/17/2002)

1. Source output (2)
2. Defect-free multilayer coated mask blank mfg, including inspection (1)
3. Source & condenser optics reliability (5)
4. CoO of EUV lithography (3)
5. Defect-free patterned mask manufacturing/commercial availability (4)
6. Reticle defect protection (from inspection through exposure) (6)
7. Effective contamination control of optical path (lifetime) (7)
8. High NA optics manufacturing (9)
9. Thermal management of reticle & projection optics at high throughput (8)
10. Resist – high sensitivity at low power with low LER (new)



Symposium

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- All issue of the top ten list of the first Symposium are addressed

Tuesday	Wednesday	Thursday
Source 1	Tool	Optics
Mask 1	Mask 2	Metrology
Resist	Contamination	
	Source 2	



Oral Presenters

Please **check with your Session Chairs 15 min prior** to start of session

Please **check whether your presentation on the conference laptop is OK** and the right version...

Please **check with AV desk 5 min prior to start** of your presentation to connect the wireless microphones

Please **stick to the timing**

Symposium

- 120 posters !
- Two sessions scheduled
- Posters are important

- Use your arrow to vote for your most appreciated poster



Poster presenters

Posters can be set up from the first break on Tuesday

Please be present at your poster during the poster session to address questions from attendees

You can leave the poster in the poster room until Thursday noon

It happens at the Hilton.

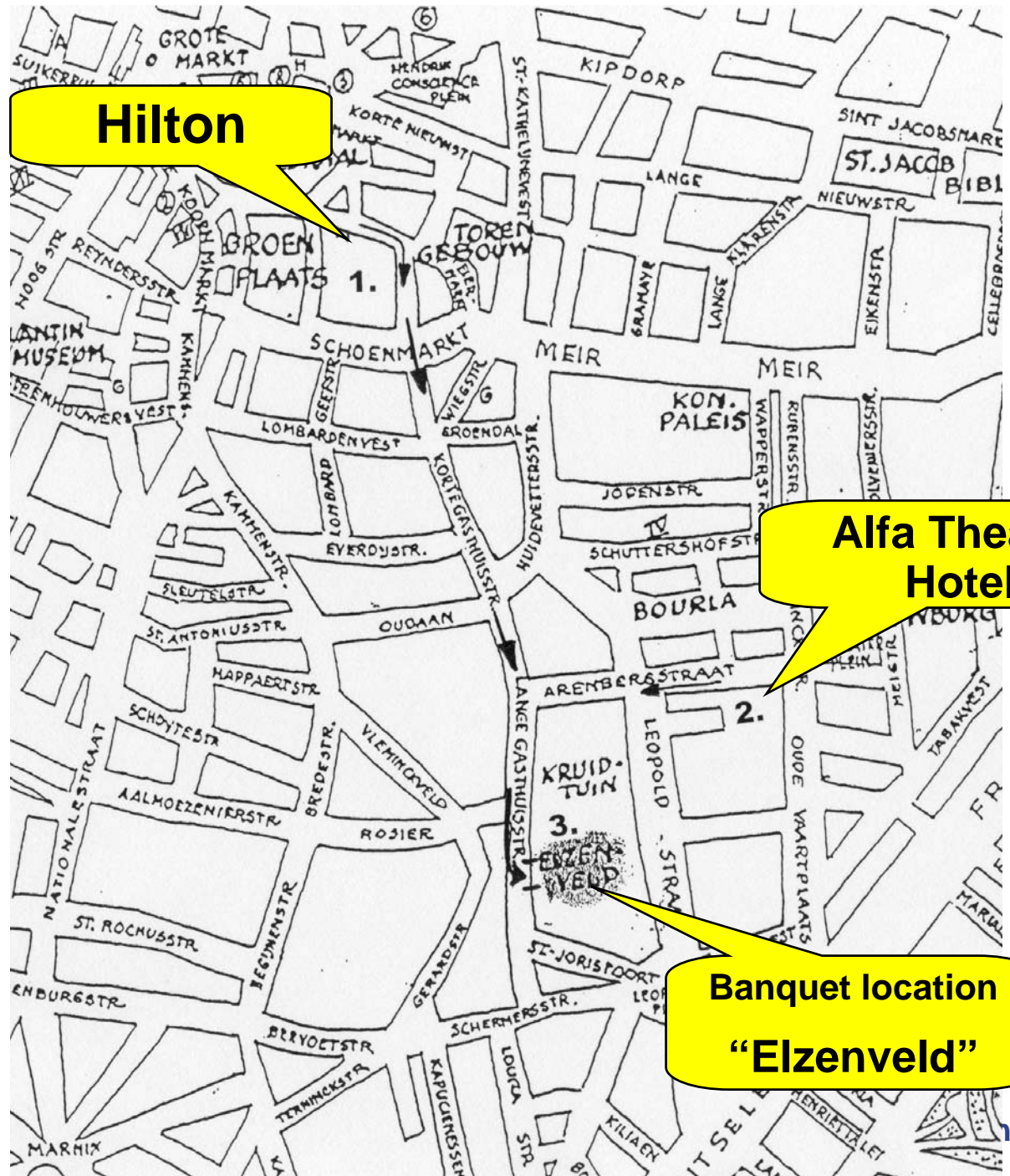
**It all happens at the Hilton,
on the third floor**

except dinner tonight

you have to walk to ...



EXTREME ULTRAVIOLET LITHOGRAPHY



Hilton

**Alfa Theater
Hotel**

**Banquet location
"Elzenveld"**

Symposium

Due to the large number of participants we have lunch in multiple rooms

The lunch regional updates are not possible due to this

To avoid overload we do not reschedule them



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EUVL

- **Industry appears to be convening on introduction of EUVL in 2009**
- **Tools required in 2007**
- **Some early pilot production likely as early as 2008**



Welcome !!

YOU

Symposium

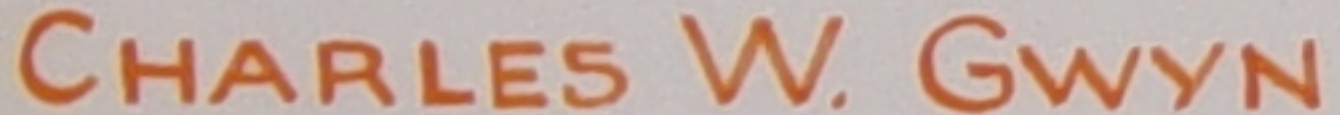
EUVL

Key note address

Key note

“EUVL in perspective”

Who better can tell this than



CHARLES W. GWYN



Chuck W. Gwyn

General Manager and Program Director for the EUV LLC Consortium, responsible for managing the technical development of EUV lithography tools in partnership with the DOE laboratories and commercial suppliers.

B.S. in Electrical Engineering, University of Kansas; M.S. and Ph.D. in Electrical Engineering, University of New Mexico
IEEE Fellow

IN RECOGNITION OF HIS OUTSTANDING COMMITMENT
TO EUV LITHOGRAPHY, AWARDED TO

CHARLES W. GWYN

ANTWERP, SEPTEMBER 30, 2003.

THE STEERING COMMITTEE EUVL SYMPOSIUM





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**ask critical questions
be open minded
learn from your colleagues**

but switch of your cell phone !!

**Enjoy the
Symposium**



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