

2012 International Symposium on Extreme Ultraviolet Lithography

Brussels, Belgium
30 September – 4 October 2012



OPENING ADDRESS

KURT RONSE, ROEL GRONHEID

BRUSSELS, BELGIUM

1 OCTOBER 2012

WELCOME TO THE 2012 EUVL SYMPOSIUM

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Symposium Chair:

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Symposium Co-Chair:

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Symposium Co-Chair:

Geert Vandenberghe (imec)

WELCOME TO THE 2012 EUVL SYMPOSIUM

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Program Chair:

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Program Co-Chair:

Patrick Naulleau (LBNL)

Program Co-Chair:

Soichi Inoue (Toshiba / EIDEC)

Program Co-Chair:

Winfried Kaiser (Carl Zeiss SMT)

THANKS TO OUR SPONSORS



2012 International Symposium on

2012 EUVL SYMPOSIUM SUPPORT TEAM AT THE SYMPOSIUM

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Beverly

Ariane

Marcy

Annemie

Liesbet

Mieke

ATTENDANCE 1ST TO 11TH SYMPOSIUM (OCTOBER 3RD, 2012)

Brussels, Belgium
30 September – 4 October 2012



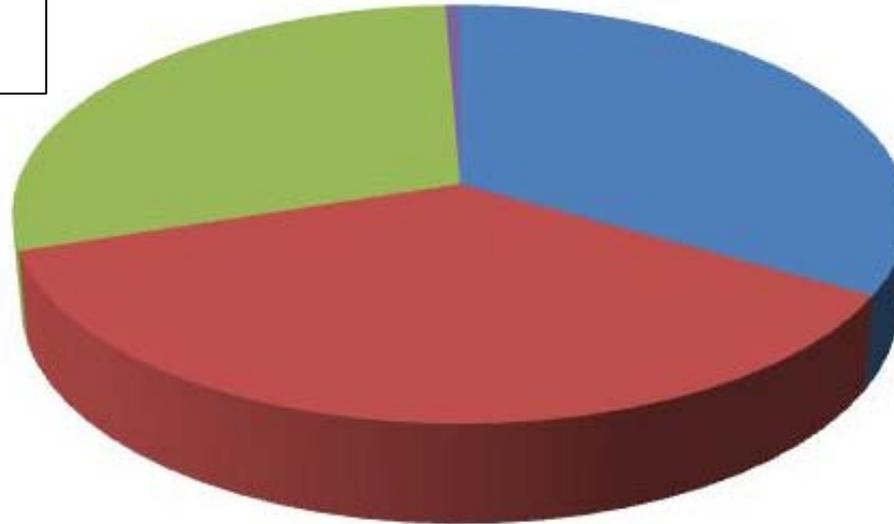
ATTENDANCE BY GEOGRAPHIC REGION

Brussels, Belgium
30 September – 4 October 2012



United States
29%

Asia / Pacific
33%



Europe
37%

- Asia
- Europe
- US
- ROW

2012 International Symposium on Extreme Ultraviolet Lithography

EUV FOCUS AREAS : DID WE MAKE PROGRESS ?

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2007 / 22hp	2008 / 22hp	2009 / 22hp	2010 / 22hp	2011 / 22hp
1. Reliable high power source & collector module	1. Long-term source operation with 100 W at IF and 5MJ/day	1. Mask yield & defect inspection/review infrastructure	1. Mask yield & defect inspection/review infrastructure	1. Long-term reliable source operation with 200 W at IF*
2. Resist resolution, sensitivity & LER met simultaneously	2. Defect free masks through lifecycle & inspection/review infrastructure	2. Long-term reliable source operation with 200 W at IF	1. Long-term reliable source operation with 200 W at IF	2. Mask yield & defect inspection/review infrastructure
3. Availability of defect free mask	3. Resist resolution, sensitivity & LER met simultaneously	3. Resist resolution, sensitivity & LER met simultaneously	2. Resist resolution, sensitivity & LER met simultaneously	3. Resist resolution, sensitivity & LER met simultaneously
4. Reticle protection during storage, handling and use	• Reticle protection during storage, handling and use	• EUVL manufacturing integration	• EUVL manufacturing integration	• EUVL manufacturing integration
5. Projection and illuminator optics quality & lifetime	• Projection/ illuminator optics and mask lifetime			

*) This requires a 20 X improvement from current source power status



HVM introduction in late 2013 if productivity challenge can be met

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PROGRAM OVERVIEW

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Extreme Ultraviolet Lithography

PROGRAM AT A GLANCE

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Monday	Tuesday	Wednesday	Thursday
Keynote presentation	Mask – Repair	Exposure Tools	Processes Enhancing EUVL
EUV Patterning and Integration	Sources and Collectors	EUV extendibility	Optics and Contamination
Lunch	Lunch	Lunch	Lunch
Resists	Free Afternoon	Mask Inspection	Mask Blanks
Mask Particle Adders		Resists & Outgassing	
Poster Session		Conference Dinner	

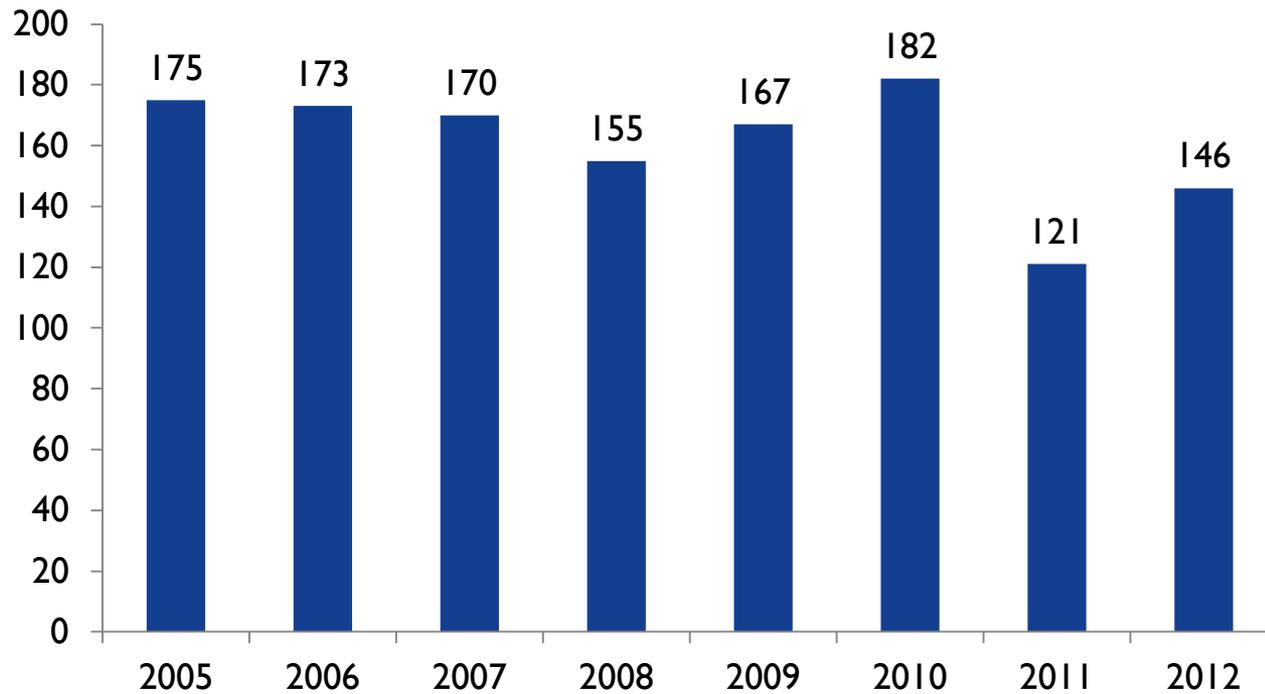
For a detailed program, see leaflet in your handouts

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of submitted abstracts

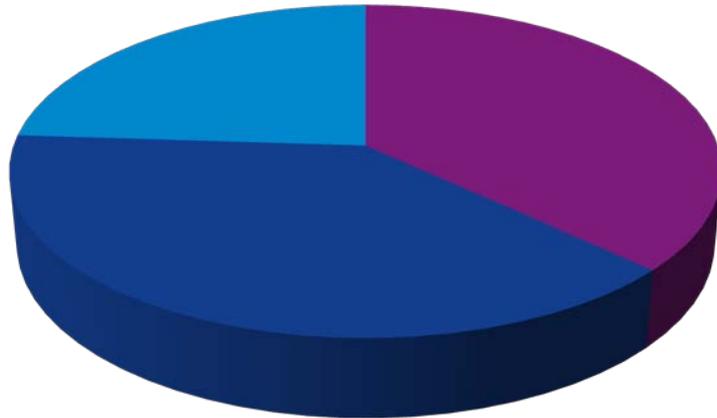


CONTRIBUTIONS BY REGION

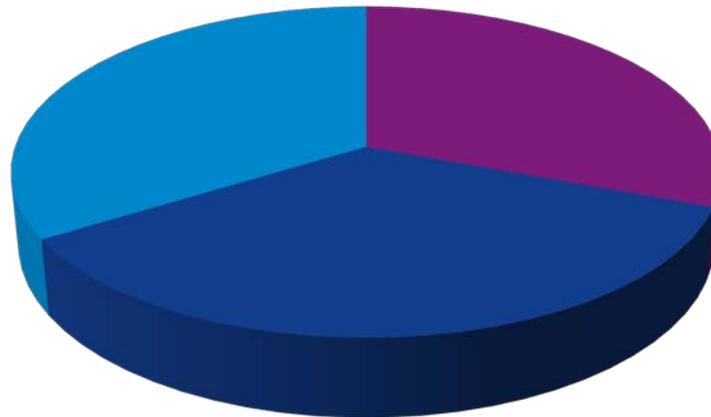
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Submitted abstracts



Oral Program



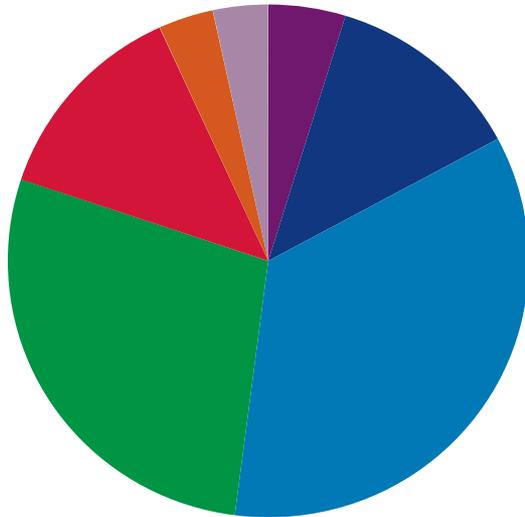
- Asia Pacific
- Europe
- USA

CONTRIBUTIONS BY TOPIC

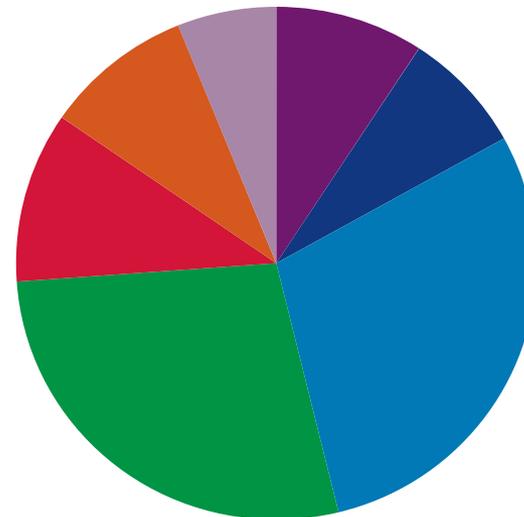
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Oral Program



- tool
- source
- mask
- resist & process
- optics
- integration
- extendibility

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HOUSEKEEPING

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Presentations and posters will be distributed through the Sematech website after the symposium

- ▶ Notification will be sent by e-mail to all Symposium attendees

Poster/paper presenters: hand in your presentation for distribution through website

- ▶ at the Speaker Desk during one of the breaks
- ▶ Stick to your allotted presentation time

Please use the audience microphones for your questions and put your cell phones in silent mode

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POSTER SESSION

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Please plan to put your poster up on Sunday 30 September before 1pm today

Please leave your poster at the end of the poster session

- ▶ Posters will be on display for duration of the Symposium

Posters should be removed by the end of the conference, Thursday 4 October, before 16:00

CONFERENCE DINNER

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Wednesday evening

Starts at 6.30pm

At 'La Tentation', Lakenstraat 28 (Rue de Laeken 28),
Brussel (15 min walk from SQUARE)

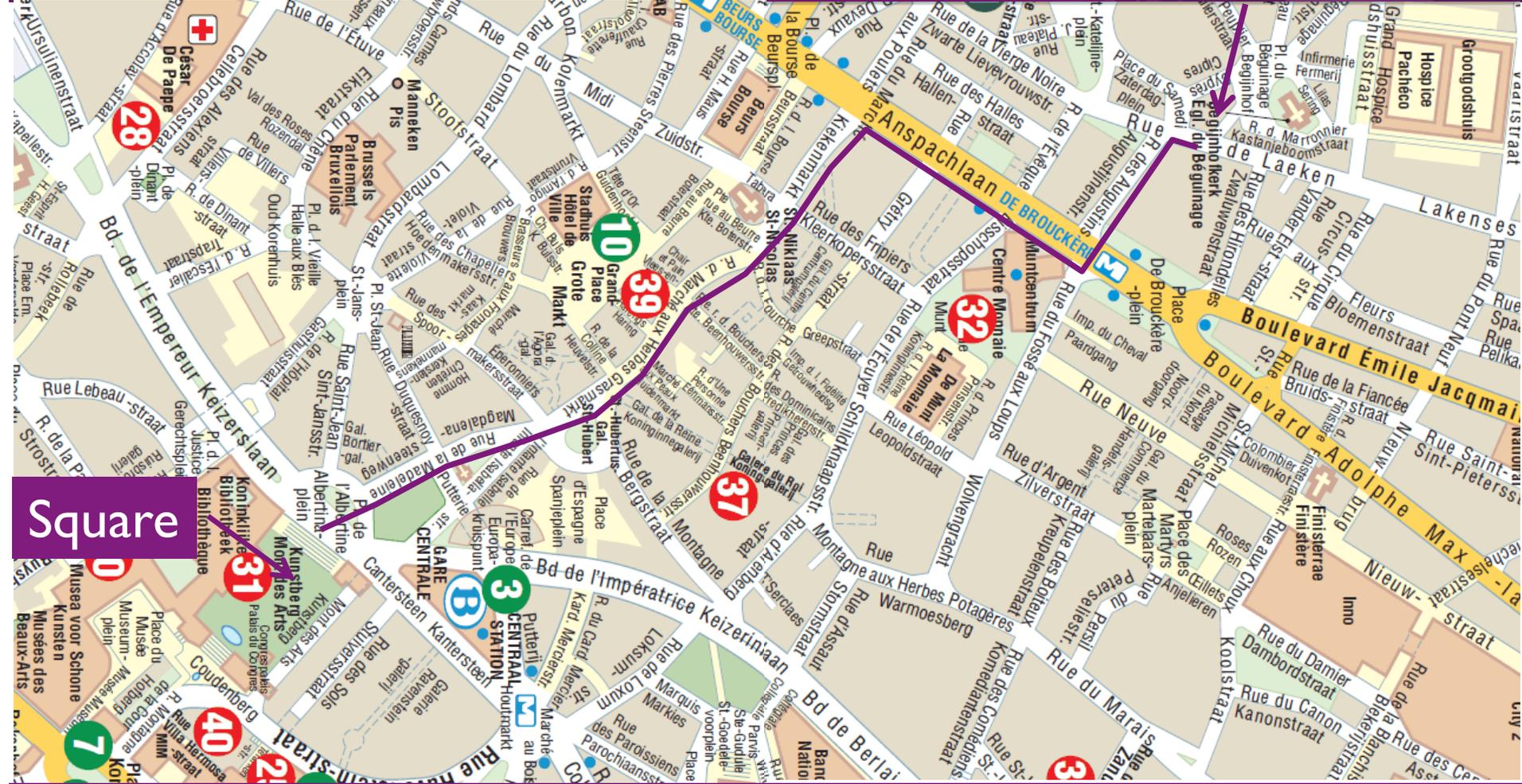
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MAP

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La Tentation
Lakenstraat 28
Rue de Laeken 28
Brussel



Square

Dinner Wednesday 6.30pm – 1.2km – 15' walk

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Extreme Ultraviolet Lithography
KEYNOTE SPEAKER

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Greg Yeric – **ARM**

“Lithography and Cost in SoC Design”