



International[®]
Baccalaureate
Africa, Europe
Middle East

DP Group 5 Conference/Workshops

Subjects: Mathematics HL, Mathematics SL, Mathematical Studies
SL and Computer Science

Friday 5 September 2008 — Sunday 7 September 2008



**Åva Gymnasium
Täby - Stockholm, Sweden**

Final Programme

Overview and general information

Please print this programme and bring it with you to Stockholm as copies will not be available on site.

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Welcome message from IB Africa/Europe/Middle East Regional Director

Dear Colleague,

Thank you for attending this IB Africa/Europe/Middle East event. To provide professional development of high quality is one of the cornerstones of IB services to schools. The IB views teachers as essential to the success of the school-learning community. Our commitment to helping new and experienced teachers of IB programmes is strongly played out in both our mission and practice.

I hope you continue to find IB Africa/Europe/Middle East professional development valuable to your school and to your students and that it helps you gain a deeper understanding of the IB programmes and underpinning philosophy. Please do not hesitate to forward us any suggestions or comments at ibaem@ibo.org

Kind regards,

Andrew Bollington

Regional Director IB Africa/Europe/Middle East

Important notes for DP coordinators

REGISTRATION

Participants' names printed on badges and certificates will appear as spelled by you in the registration process. Please avoid using accents and special characters as these may not be recognized by our printing system. Events Unit will not reprocess badges or certificates at any time.

Please also ensure that the email address given for each participant is clear and correct, so that both the Events Unit and workshop leaders can contact them with information about the event.

IB CANCELLATION POLICY

Once registrations have been confirmed, the following policy will apply. Cancellations received up to three weeks before the beginning of the event will be reimbursed at 80% of the registration fee. Cancellations received after this deadline and "no-shows" will be charged the full registration fee. This policy applies also in cases where visas are not granted.

TRAVEL

Participants are responsible for their own travel arrangements to and from the event and for meeting visa requirements. Please note that travel arrangements should not be confirmed until participants have received confirmation of registration (which should not be confused with the initial acknowledgement of receipt of registration details). Confirmation will be sent only when the minimum number of registrations for each workshop has been received.

Participants are recommended to secure comprehensive travel insurance.

VISAS

Please refer to IB Africa/Europe/Middle East policy concerning visa applications, which appears later in the programme. Acquiring information about visa, and the length of the application process, is the sole responsibility of the participant/school. It is essential to check visa requirements with the appropriate embassy/consulate, or with a travel agency, before registering. While the IB makes every effort to ensure that visas are granted to all participants, the final decision of a Ministry of Foreign Affairs is beyond the IB's control and the regional office is under no obligation to reimburse a registration fee in cases where a visa is not granted.

The IB Africa/Europe/Middle East Events unit can a visa support letter, to be downloaded from our registration system online by the IB coordinator. This facility is only available to participants whose registration has been confirmed by the Events unit. The visa support request form is therefore no longer available in the preliminary programme.

HEALTH

Participants are recommended to secure adequate accident and medical insurance and to check health regulations and recommended vaccinations before travelling to the country concerned.

ACCOMMODATION

Participants are responsible for reserving accommodation for their stay. Information on hotels and a reservation form are given in this programme. In the case of cancellation, the cancellation policy of the chosen hotel applies.

CERTIFICATES OF ATTENDANCE

Certificates of attendance will be issued only to participants who attend all scheduled sessions. No certificates of attendance will be issued for conferences. Within a week after the event IB Coordinators will be notified by email that certificates of attendance can be downloaded from the Regis online system. Instructions on how to do this will be given in the email.

The certificates will be available for downloading only for a three-week period after the event. It is regretted that duplicate copies of certificates cannot be issued after this period and we recommend that participants either save the document as a pdf file or make extra copies in case of loss of the original.

Workshop venue:

Åva Gymnasium

Åva skolgrand 1-3, Taby, Sweden

Rolf Oberg, DP Coordinator

Tel: +46 8 5555 8000 / Fax: +46 8 768 6914

Website: www.ava.taby.se

Workshop organization:

Logistics & administration of online registration

Events Unit, IB Africa/Europe/Middle East

Anil Rikhye, Associate events manager,

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Academic content

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Tel: + 41 22 791 7740 / Fax: + 41 22 791 0277

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IB curriculum and assessment centre, Cardiff

Amanda Sandland, Subject area manager, Mathematics HL

Einir Wyn Davies, Subject area manager, Mathematics SL

Helen Thomas, Subject area manager, Mathematical Studies SL

Exhibitors

Texas Instruments and **Casio** have kindly agreed to loan calculators to the workshop leaders and participants and will demonstrate their products during the event.

Texas Instruments: Represented by Carina Kroninger

Casio: Represented by: Kurt Klaner

Cambridge University Press: Represented by: Jonathan Midgley

Oxford Study Courses Ltd: Represented by: Rosanna Montalbano

Permission granted to suppliers and publishers to exhibit at this event does not imply endorsement by the International Baccalaureate.

About the venue



“Welcome to **Åva gymnasium**, the local authority college in Täby.

Åva Gymnasium, Åva skolgränd 1-3, Täby

08-55558000

Rolf Öberg

IB DP Coordinator

Website: www.ava.taby.se

Getting there:



The closest railway station is Tibble, but you can also walk from Täby C or Roslags Näsby. All the train stations are along Roslagsbanan which starts from Östra station at underground station (T) Tekniska Högskolan.

You must **avoid** trains to Näsby Park, they follow a different path. The rest of the trains all pass Roslags Näsby and half of the trains stop at Tibble and half of the trains stop at Täby Centrum. Do also avoid the “fast trains”, “snabbtåg” since they only stop at major stations and Tibble is not one of them. Traveling time from Östra station to Roslags Näsby is 12 minutes. Another 2 minutes will take you to Tibble or Täby Centrum. Walking distance in Täby is

Roslags Näsby – Åva (6 minutes walk)

Tibble – Åva (3 minutes walk)

Täby centrum – Åva (8 minutes walk)

Objectives, provisional programme and target audience

Criteria

The following schools are eligible for this workshop:

- Authorized schools, candidate schools or interested schools- all regions

The following participants are eligible for this workshop:

- This workshop / conference is intended primarily for experienced teachers but we also welcome participants that are inexperienced DP teachers, provided that they have attended at least a workshop for teachers new to the DP (in the summer of 2007 or 2008)

Objectives and information about some of the planned content

Please also refer to the section about the timetable.

There will be **two plenary sessions** for all participants with keynote speakers:

- **Douglas Butler** “How can ICT make a difference to classroom teaching”
- **Ric Sims** “Upgrading the truth. An exploration of the role of intuition and creativity in mathematical paradigm shifts.- Discover your inner Wiles.”

There will be a **programme of Concurrent sessions**, with a smorgasbord of topics. These sessions will generally be open to all participants from all subjects. There could also be sessions that are “reserved” for participants from one (or two) subjects. Both Texas Instruments and Casio have agreed to present several very interesting sessions.

Five sessions will be specific for the subjects. You will join a group led by an experienced and enthusiastic workshop leader. For more details about respective subjects – please see below.

Math HL

The aim of this workshop for mathematics HL is to focus on a number of issues that are relevant to teachers of the subject. At this early stage it is not possible to state the exact scope of these sessions, but some of the possibilities are outlined below. This list is not exhaustive and others may be added.

- The use of the GDC and computer software in terms of how it can be used most effectively for the teaching of the mathematics HL course, including use in the portfolio.
- Sessions on internal assessment, which could include the assessment of portfolios, how to prepare students for the writing of portfolios and how teachers can write their own portfolios.
- An opportunity to look at the options for mathematics HL in terms of how to approach the teaching of the options, and activities to use within the teaching of each option.
- A review of the new format for paper one and paper two, which was sat for the first time in May 2008.
- Given that we are in the second year of the review cycle then there will hopefully be the opportunity to find out how things have progressed up until this point, what needs to be decided in the coming months and what role teachers play in this.

As well as these subject specific sessions, more general sessions will be available including sessions from Casio and TI, looking at the extended essay including the role of the supervisor and the examiner, the relevance of TOK in the mathematics classroom, and the importance of the learner profile and international-mindedness and its relation to mathematics.

Math SL

These workshops for experienced teachers of Mathematics SL aim to provide professional development in three aspects of the programme. We will take a more in depth look at the portfolio including guidance on developing tasks. There will be opportunities to explore further the use of technology in teaching and learning mathematics. Last but not least you will be able to choose from a selection of sessions on wider aspects of the diploma as they relate to mathematics. The Subject Area Manager (SAM) for Mathematics SL from IB Cardiff will be attending and there will be an opportunity to put questions to her as well as find out more about what goes on in Cardiff and get up to date news on the current group 5 curriculum review.

For five of the sessions you will join an SL group. Topics to be discussed will include aspects of the portfolio, using the GDC as a teaching tool, meeting the SAM, as well as sharing ideas and resources. For three of the sessions you will choose from a smorgasbord of topics. These sessions will generally be open to all participants from all subjects. Sessions currently being planned include a chance to see TI-Nspire in action, Vectors on Autograph, TOK, Extended Essays and International-Mindedness. We also plan to include sessions for teachers using Casio technology.

Mathematical Studies SL

During the conference we will be offering five subject specific sessions for Mathematical Studies teachers. The sessions will be led by four experienced and enthusiastic workshop leaders. The focus of these sessions will be to share good practise and to generate new and innovative ideas for the teaching of Mathematical Studies.

The plan is to have two or more sessions dedicated to IA. We intend to brainstorm new ideas for projects especially non statistical ones and discuss projects where the original idea showed potential but was not developed. For less experienced teachers we will include help on getting started with the project. We will be answering questions such as: “How do you stimulate your students in their choice of topic and help them to produce a coherent and concise report?” and “How do you successfully carry out ‘sophisticated’ mathematical processes?” The other three sessions could include ‘Using the GDC’, ‘Useful Websites and Resources’, ‘Teaching Strategies’, ‘Investigational Work’ and ‘TOK’.

During the general sessions there will also be presentations from Texas Instrument and Casio on ‘Technology in Maths Studies’. It promises to be a productive three days aimed at giving all teachers of Mathematical Studies the motivation, ideas and resources they need to teach the subject.

Computer Science

The focus of the Computer Science sessions will concentrate on strategies to teach the current Computer Science syllabus and in particular to look at best practices for approaching the dossier from initial project ideas for students to final assessment by teachers, and the common pitfalls that arise.

There will also be a further two sessions dedicated to “Supervising an Extended Essay in Computer Science” and “Internet Resources – teaching and learning over the Internet”. The latter will look at the possibilities of students and teachers working on line in a supported environment.

All sessions will include a general reflection on the way in which computer education is going now and its prospects for the future and these thoughts will be fed back into the review process.

During the workshop, those who also teach Mathematics may wish to go to some of those sessions and we should be flexible enough to arrange Computer Science sessions to fit in with that.

Douglas Butler

After graduating in Mathematics and Electrical Sciences at Cambridge University, and a spell with EMI Records, Douglas has specialised in secondary Mathematics. He has served as Head of Mathematics at Oundle School (Peterborough UK), and was Chairman of the MEI Schools project, a leading UK curriculum development project, for 6 years.

A keen pianist and dinghy sailor, he is also author of "Using the Internet - Mathematics" (revised July 2005) and a lead author of Autograph (version 3.2 May 2007), and a major contributor to the ICMI technology study in Hanoi (December 2006). He maintains a large web site of educational resources in many subject areas.

In 2000 he founded the innovative ICT Training Centre, based at Oundle School, which is now creating new resources for the educational use of computers in mathematics, and running the TSM (Technology in Secondary/College Mathematics) teacher training events all over the UK and overseas. He is a frequent speaker at international mathematics teachers' conferences, and was the opening keynote speaker at the 2006 T³ Conference in Denver and 2007 NZAMT in Auckland. He has also run a new series of conferences on Technology for Teaching Music.

Ric Sims

Brought up in a musical family in England, Ric graduated in Mathematics and Philosophy from the University of Oxford and completed an M.Sc. in Pure Mathematics at Warwick. Then followed a period of research in operator algebras at Liverpool University with Antony Wasserman and Institute des Hautes Etudes Scientifique in Paris with Alain Connes. What happened next was something of a career change. He swapped his staff card for a student card at Liverpool and took a Master of Music degree specialising in composition and conducting. He was twice winner of the University's Alsup Composition prize in 1986 and 1988. He moved to Holland to continue his studies at the Royal Conservatory of The Hague where he studied composition with Louis Andriessen and Gilius van Bergeijk and conducting with Jan Boogaarts and Ed Spanjaard. He has also studied in Italy with Franco Donatoni and big band composition with Maria Schneider.

He was conductor of the Amsterdam based Hex Ensemble from 1990 – 1997 and the Conservatory in-house contemporary music group Ensemble Royaal from 1999 as well as other groups in the Dutch new music circuit such as Insomnio, SOIL, Barton Workshop, ICP, Rotterdam Young Philharmonic and so on. He has conducted premiers of works of Andriessen, Raxach, Ayers, Lann, Bermel, Lach Lau, Barlow, Isadora, Bollen, Mengelberg and others. His piece Responses for large ensemble was commissioned for the opening of the new Dutch parliament building performed in front of Queen Beatrix and 5000 assembled guests from all over the world. His interest in jazz has led him to other pastures and he has travelled a number of times to Mexico to work as conductor and composer with the Argentinian singer Margie Bermejo. Ric has written music for theatre and TV and has worked on a number of multimedia collaborations.

Ric started his long association with the IB in Rotterdam in 1990 where he taught Mathematics HL and Theory of Knowledge. In 1995 he became an examiner for ToK and was brought in to the senior team in 1998. He was Deputy Chief Examiner between 2000 and 2005 and has been involved in the last two curriculum reviews for ToK. Ric is also an examiner for music composition and performance and now economics HL.

After time spent in Prague and St Petersburg Ric now lives in Sweden where he teaches Economics, Philosophy and ToK at the Katedralskolan in Uppsala. His concerto for piano and live electronics will be performed shortly in Sweden and Germany by the renowned German pianist Marc Reichow with whom he has a long standing collaboration. He is currently working on a large scale electroacoustic work *A lot of things are strange* and a music theatre piece *Isobel*.

Workshop Leaders and facilitators from Tech companies

Math HL

Mr Bill Roberts	Independent	UK
Mr Josip Harcet	AIS of Zagreb	Croatia
Ms Marlene Torres Skoumal	Vienna IS	Austria
Mr Barry Smith	Independent	Switzerland

Math SL

Ms Sheila Messer	Independent	UK
Mr Leo Boissy	Britannia School, Vancouver	Canada
Mr. Hamed Mokhtar	Greenlands School	Egypt

Math Studies

Ms Jane Forrest	Rotterdam International Secondary School	NL
Mr Dennis Oberg	Independent	Belgium

Computer Science

Elizabeth Collins	IS Milan	Italy
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Representatives from Tech suppliers

There will be representatives present from both Texas Instrument and Casio to make presentations at the concurrent sessions and/or some of the subject specific sessions. (See the section on **Concurrent Sessions** on pages 17-19 for details).

Final Agendas for subject specific sessions

Final Agenda: Subject: Mathematics HL

Leaders: Josip Harcet, Bill Roberts, Marlene Torres Skoumal and Barry Smith

Day 1:

Session 1: Plenary: Douglas Butler.

“How can ICT make a difference to classroom teaching?”

Sessions 2, 3, 4 and 9: Participants are split into 4 groups and follow the schedule below for these sessions.

Session	HL Group 1	HL Group 2	HL Group 3	HL Group 4
2	New HL Internal Assessment Tasks	Approaching the Options in HL Mathematics	The New Format Paper One and Two.	Approaching the Options in HL Mathematics
3	Autograph for Mathematics HL		New HL Internal Assessment Tasks	The New Format Paper One and Two.
4	The New Format Paper One and Two.	New HL Internal Assessment Tasks	The use of autograph software with 2 and 3d vectors.	
9	Approaching the Options in HL Mathematics	The New Format Paper One and Two.	Approaching the Options in HL Mathematics	New HL Internal Assessment Tasks

Autograph for Mathematics HL

Presenter : Douglas Butler

Description : Delegates will be taken through a number of lesson plans involving Autograph, Excel and web resources for teaching Topic 2 (Functions and Equations), 3 (Circular Functions and Trigonometry), 5 (2D and 3D Vectors), 6 (Statistics and probability) and 7 (Calculus); also, the optional topic 8 (Statistics and probability) and 10 (differential equations). There will also be ideas to consider for the HL portfolio project in mathematical modeling.

Delegates will receive a copy of the TSM Resources CD which includes a 30-day installation of Autograph 3.2, and laptops may be brought to this session (but are not required).

New HL Internal Assessment Tasks

Presenter: Marlene Torres Skoumal

Description: In this session, we will discuss some of the new HL IA tasks and the application of the criteria to the solution of these tasks. The goal is for participants to have an outline of a possible solution of the tasks by the end of the session.

Approaching the Options in HL Mathematics

Presenters: Barry Smith and Josip Harcet

Description: In this session participants will have the chance to discuss two of the four HL options. The session will focus on both the teaching and examining of the options, including approaches for both students and teachers.

The New Format Paper One and Two.

Presenter: Bill Roberts

Description: This session will focus on the new format of Paper One and Paper Two and participants will have the opportunity to discuss and reflect on the changes both from a teacher perspective and a student perspective.

Day 2:

Session 5: Plenary: Ric Sims

“An exploration of the role of intuition and creativity in mathematical paradigm shifts - discover your inner Wiles.”

Session 6: Concurrent session 1/3

- Participants to sign up for 3 of 13 concurrent sessions offered. See pages 17-19 for details.

Session 7: Concurrent session 2/3

- Title 2/3: ?

Session 8: Concurrent session 3/3

- Title 3/3: ?

Day 3:

Session 9: See schedule for day 1.

Session 10: Mathematics HL: The Future.

Presenters: Josip Harcet, Bill Roberts, Amanda Sandland, Barry Smith and Marlene Torres Skoumal

Description: This session will present an update on curriculum review, a discussion on the future of internal assessment and option topics, and an open forum to ask questions.

Important Note for Participants

Please bring the following items with you to the workshops:

A GDC and a copy of the current subject guide.

Stockholm IB Diploma Workshops September 2008
Final Agenda: Mathematics SL
Workshop Leaders: Leo Boissy, Hamed Mohktar, Sheila Messer

Essential Note for Participants

Please bring the following items with you to the workshops:

- Your Graphic Display Calculator
- A laptop or a memory stick
- An idea for a portfolio task
- A teaching idea to share e.g. a use of technology as a teaching tool, a link to TOK, an introduction to the portfolio

Day 1: Sept 5 2008

Session I: Opening Plenary: Douglas Butler

Session II: Maths SL Plenary : Douglas Butler

Autograph for Mathematicss SL

Delegates will be taken through a number of lesson plans involving Autograph, Excel and web resources for teaching Topic 2 (Functions and Equations), 3 (Circular Functions and Trigonometry), 5 (2D and 3D Vectors), 6 (Statistics and probability) and 7 (Calculus). There will also be ideas to consider for the SL portfolio project in mathematical modeling.

Delegates will receive a copy of the TSM Resources CD, which includes a 30-day installation of Autograph 3.2, and laptops may be brought to this session (but are not required).

Session III: Subject session (see below)

Session IV: Subject session (see below)

Day 2: Sept 6 2008

Session V: TOK Plenary; Ric Sims

Session VI: Concurrent session

Session VII Concurrent session

Session VIII: Concurrent session

Day 3: Sept 7 2008

Session IX: Subject session (see below)

Session X: Subject session (see below)

Maths SL Subject sessions

Internal Assessment 1

- Assessment
- Developing standardisation matrices for new tasks

Internal Assessment 2

- Designing tasks

SAM

With Einir Wyn Davies, Subject Area Manager from IB Cardiff,

- Curriculum review
- Grade award
- Your questions

Final Session

- Review of new exam format, especially paper 2
- Sharing teaching ideas
- Outstanding questions

	Leo (Group 1)	Hamed (Group 2)	Sheila (Group 3)
Session 3	IA 1	IA 1	SAM
Session 4	IA 2	SAM	IA 1
Session 9	SAM	IA 2	IA 2
Session 10	GDC & exam sharing	GDC & exam sharing	GDC & exam sharing

Stockholm IB Diploma Workshops September 2008
Final Agenda: Mathematics Studies
Workshop Leaders: Jane Forrest & Dennis Oberg

Important Note for Participants

Please bring the following items with you to the workshops:

A GDC and a copy of the current subject guide

	Group 1 Math Studies	Group 2 Math Studies
Session 1 - Plenary by Douglas Butler		
Session 2	IA – Jane Forrest	Lesson plans/technology – Dennis Oberg
Session 3	TI-Navigator – Maria Waern	IA – Jane Forrest
Session 4	Lesson plans/technology – Dennis Oberg	TI-Navigator – Maria Waern
Session 5 – Plenary: TOK by Ric Sims		
Session 6 : Concurrent sessions (see pages 17-19 for details).		
Session 7 – as above		
Session 8 – as above		
Session 9	Autograph for Math Studies – Douglas Butler	Autograph for Math Studies – Douglas Butler
Session 10	Final session with SAM Math Studies – Helen Thomas	Final session with SAM Math Studies – Helen Thomas

Autograph for Mathematical Studies (SL) [90 min] Douglas Butler

Delegates will be taken through a number of lesson plans involving Autograph, Excel and web resources for teaching Topic 4 (Functions), 5 (Geometry and Trigonometry), 6 (Statistics) and 7 (Introductory differential calculus).

Delegates will receive a copy of the TSM Resources CD, which includes a 30-day installation of Autograph 3.2, and laptops may be brought to this session (but are not required).

Final Agenda: Subject: Computer Science

Leader: Elisabeth COLLINS

Day 1:

Session 1: Plenary: Douglas Butler.

“How can ICT make a difference to classroom teaching”

Session 2: Approaches to Teaching Computer Science – fitting the curriculum to the student, the IB philosophy and to school constraints. Using the case study effectively.

Session 3: Compute Science Resources – book and Internet

Session 4: External Assessment – the production of examinations – training students to perform to their highest level – looking at scripts to see common pitfalls.

Day 2:

Session 5: Plenary: Ric Sims

“An exploration of the role of intuition and creativity in mathematical paradigm shifts - discover your inner Wiles.”

Computer Science participants are welcome to attend this plenary from an experienced TOK teacher, alternatively a session on TOK and its relation to Computer Science will be offered within the group.

Session 6: Internal Assessment 1 – Starting off the dossier – from initial choice of project to a competent analysis and design section.

Session 7: Internal Assessment 2 – Getting through the process – avoiding common pitfalls - assessing the criteria and completing the paperwork.

Session 8: Internal Assessment 3 – Examining moderated dossiers

Day 3:

Session 9: Supervising an Extended Essay – choice of topic - meeting the new criteria – grading past essays using the new criteria.

Session 10: Into the Future – Does the current syllabus and method of assessment meet the needs of students now and in the future?

Important Note for Participants

Please bring the following items with you to the workshops:

- *Current Computer Studies Study Guide*
- *IB Internal Assessment Teacher Support Material*
- *information on resources that you find useful in the teaching of computer science (to share with others)*
- *a suitable medium (USB key, CD etc.) to use in order to take away resources from the workshop.*

Concurrent sessions on Day 2

DP GROUP 5 CONFERENCE STOCKHOLM 2008			
CONCURRENT SESSIONS ON SATURDAY 6 SEPTEMBER			
No.	Presenters	Title	Short description
1	Bill Roberts/Dennis Oberg	ToK and Mathematics: Incorporating ToK into your Mathematics Class	This session will begin with a chance to discuss the plenary given by Ric Sims. We will then discuss how Mathematics and ToK support each other, undertake a series of activities to clarify what is meant by a mathematical knowledge issue and consider its application in the mathematics classroom.
2	Ric Sims	Ways of Knowing in Mathematics - how to highlight the ToK-richness of the subject	Mathematics is an essential source of insights into how it is that a human being can know. ToK in its turn can enrich the mathematical experience by asking (sometimes awkward) questions about the nature of mathematical knowledge. This session is aimed at exploring how the experienced maths teacher can bring ToK ideas into his/her teaching.
3	Sheila Messer/Jane Forrest/Barry Smith	Extended Essay	We will try to answer your questions regarding any aspect of the Extended Essay. Some starting questions: (i) What makes a good extended essay in Mathematics? (ii) How can we encourage students to do their EE in Mathematics? (iii) How can I prepare for my role as a supervisor? (iv) What are my responsibilities with respect to academic honesty? (v) What has changed with the new assessment criteria?
4	Leo Boissy/Hamed Mokhtar	International Mindedness/learner profile	The international nature of mathematics will be considered through discussion of some classic mathematical problems from ancient times and the strategies used in their solution. Further discussion will explore some cultures of mathematics that exist in our modern world. The IB learner profile as the behavioral output of the Diploma Programme, its importance and how to enhance it. This session will discuss practical ways of enhancing the IB learner profile in Maths classes.

5	Amanda Sandland	The Moderation Process	This session will discuss the principles behind and the process of moderation of assessment tasks. An opportunity to gain a fuller understanding of what happens at IBCA. Programme, its importance and how to enhance it.
6	Marlene Torres Skoumal	Writing HL/SL Internal Assessment Tasks	In this session, we will present recipes for writing successful IA tasks. The type of task will determine the necessary ingredients, and the seasonings will come from careful consideration of criteria application. Since this is a hands-on session, participants are encouraged to bring self-made tasks, even if they are incomplete.
7	Douglas Butler	Making the new MS Office 2007 Mathematically Friendly	Office 2007 has a new, powerful interface, but underneath it is much the same. This session will guide you through the new ways into the familiar tasks in Word and Excel. In particular, in Word: how to create handsome diagrams (remember there is now no Drawing toolbar!) and expressions (using Unicode characters and the new, fancy 'Equation builder'), and how to find old faithfuls that are now a bit buried, such as the indispensable 'Autocorrect'. In Excel, including how to find the even more buried, but also indispensable, slider-bar. There are lots of relevant files on www.tsm-resources.com
8	Josip Harcet	Polynomials and a GDC	This session will explore the scope of polynomial algebra using a GDC and the use of polynomials in Discrete Mathematics.
9	Maria Waern	Is a square a rectangle?	A new approach to a classic dilemma using TI-Nspire CAS in a hands-on activity. We will explore various approaches to investigate how the area varies of a rectangular space with a fixed perimeter. Then there will be demonstrations of how TI-Nspire CAS can be used in the teaching of Mathematical Studies.

10	Øystein Nordvik - Texas Instruments	Ti-Nspire- visualizing mathematics	TI-nspire makes it possible to visualize maths in a manner that teachers have not been able to do in the past. Focusing on parts of the syllabus, the aim of this lecture is to demonstrate how to make students better understand mathematics. This tool gives teachers and students the possibility to dynamically change parameters and by doing so actually see that the mathematical theories are true. Ti-nspire is useful both as a tool for demonstration in class as well as for students who want to explore mathematics on their own. The session will be a demonstration only and there will be no hands-on training.
11	Carlos Coelho - Texas Instruments	The Interactive Classroom - stimulating teaching and engaged learning!	Lots of technology is focusing on individual learning. The TI-Nspire Navigator™ System gives a new dimension to learning, teaching and assessment. This wireless network for TI-Nspire™ technology devices turns a classroom into a collaborative learning environment in which all the students are an active part of the teaching and learning process.
12	Tor Andersen - Casio	Is enhanced motivation and understanding by teaching mathematics with Casio ClassPad Manager possible? How can we make students become more active participants in learning mathematics?	The principal aim of the lecture is to provide the participants with the necessary knowledge, skills and understanding to make sound decisions about when, and how to use ClassPad Manager effectively in teaching some particular subjects.
13	Rainer Lueck - Casio	Improving the quality of teaching Mathematics with the GDC (CASIO fx 9860 G)	The workshop will demonstrate the usefulness of the GDC as a support tool for lessons and show how it can help in making Mathematics more attractive and stimulating for pupils. Examples from the IB Diploma Programme and the German schools system will be presented and discussed. In addition the limits of using the GDC can be explored. Important and also new tools for the CASIO fx 9860 G will be presented and can be tried out by the participant

Final timetable

Please refer to the section on **Concurrent Sessions on pages 17-19** for details of each of the 13 sessions that will be offered on Day 2. Sign up sheets will be posted outside the plenary hall and participants can choose the 3 sessions that interest them the most. **A maximum of 25 participants will be allowed for each session so please sign up early as some sessions may be over-subscribed.**

Some concurrent sessions may be cancelled if not enough participants sign up for them.

Friday 5th September Day 1	Saturday 6th September Day 2	Sunday 7th September Day 3
08.00 - 0830: Arrival and refreshment		
0830 - 0900: Opening Ceremony Welcome (school and IB) Student performance	0845 - 1000: Session 5: Plenary Ric Sims: Upgrading the truth <i>An exploration of the role of intuition and creativity in mathematical paradigm shifts. Discover your inner Wiles.</i>	0845 - 1015: Session 9
0900 - 1015: Session 1 Plenary: Douglas Butler <i>How can ICT make a difference to classroom teaching</i>	1000 - 1030: Break	Subject specific 4/5
1015 - 1045: Break	1030 - 1200: Session 6 Concurrent session 1/3 Participants to sign-up for 3 of the 13 sessions offered. See pages 17-19 for details.	1015 - 1030: Break
1045 - 1215: Session 2	1200 - 1300: Lunch	1030 - 1200: Session 10
Subject specific 1/5	1300 - 1430: Session 7 Concurrent session 2/3 Participants to sign-up for 3 of the 13 sessions offered. See pages 17-19 for details.	Subject specific session No 5
1215 - 1315: LUNCH	1430 - 1500: Break	
1315 - 1445: Session 3	1500 - 1630: Session 8 Concurrent session 3/3 Participants to sign-up for 3 of the 13 sessions offered. See pages 17-19 for details.	
Subject specific 2/5	1630 - 1730: Official Reception at the school	
1445 - 1515: Break		
1515 1645: Session 4		
Subject specific 3/5		

A Reception will be held at the host school after sessions end on Day 2 (Saturday).
All workshop leaders and participants are cordially invited to attend.
No certificates of attendance are issued for conferences

Accommodation and transport in Stockholm

- **Täby Resebyrå** have been appointed as official travel agents for the event. As September is a busy month for tourism in Stockholm, block bookings have been made with 5 hotels in downtown Stockholm and in Täby (closer to the host school).
- Participants are requested to make their hotel reservations directly with the agent. Payment for accommodation should also be made directly as the IB does not accept payment for hotel bookings
- In the case of cancellations, the cancellation policy of **Täby Resebyrå** (stated below) will apply.
- Although the hotels have offered preferential rates for the period of the event, participants may choose other accommodation if they wish
- IB Africa/Europe/Middle East regional office bears no responsibility for the recommended hotels.
- **Local transport. All participants who reserve through the official agent will have a 3 day pass on the public transport delivered to them when they check in at their hotel. Others can collect their pass from the IB site office at the host school on Day 1.**

Täby Resebyrå

Terms and conditions

*Upon receipt of your Hotel Reservation Form we will send you a confirmation called Hotel Reservation Summary Form. We will confirm the hotel that you have received and we will give you all bank details that you will need. Deadline for hotel reservation and payment is **June 23, 2008**. Rooms not paid for before this date will be cancelled. We have hotel allotments until that time-after that date hotels will be on request.

*There will be a booking agency fee of SEK 100 added to the total costs for the rooms.

*This fee is not refundable in case of cancellation.

Cancellation Policy

*Cancellation after June 1 90 % refund

*Cancellation after July 15 50% refund

*Cancellation after August 1 No refund

*No show rooms: any rooms not cancelled or not occupied will be entirely charged

Directions to the host school from the recommended hotels.

Birger Jarl Hotel, Tulegatan 8, Stockholm

Open the map by pasting the link below in your browser. The hotel is indicated with a red circle. Walk Tulegatan, Rådmanngatan, Danderydsgatan to Stockholm Östra. (10 minutes walk) Get to the school by following the directions on page 6.

<http://www.multimap.com/s/k1OJiOfK>

Comfort Prize, Kungsbron 1, Stockholm

Open the map by pasting the link below in your browser. The hotel is indicated with a red circle. Walk across the bridges to Vasagatan, turn right until you reach underground station T-centralen. (10 minutes walk) Take the underground towards Mörby Centrum to Tekniska högskolan (6 minutes) where you switch to train at Stockholm Östra Get to the school by following the directions on page 6.

<http://www.multimap.com/s/k4jD6QaH>

Mornington Hotel, Nybrogatan 53, Stockholm

Open the map by pasting the link below in your browser.. The hotel is indicated with a red circle. Walk Nybrogatan until you reach underground station Stadion at Karlavägen. (5 minutes walk) Take the underground towards Mörby Centrum to Tekniska högskolan (2 minutes) where you switch to train at Stockholm Östra.

You could of course take a longer walk to Östra station (use the map to find your way. 20 minutes walk)

Get to the school by following the directions on page 6.

<http://www.multimap.com/s/BWDQddoD>

Scandic Hotel, Näsbyvägen 4, Täby

Open the map by pasting the link below in your browser. The hotel is indicated with a red circle. Walk Ytterbyvägen, Näsbydalsvägen until you reach Östra Bangatan. Pass through the tunnel under the railway and you have reached the back of the school. The main entrance is from Åva skolgränd on the other side of the building. (10 minutes walk)

<http://www.multimap.com/s/O7gELn4z>

Täby Park Hotel, Kemistvägen 30, Täby

Open the map by pasting the link below in your browser. The hotel is indicated with a red circle. Walk across the street and follow the path in between the houses on the other side of the street you will then follow this path for bicyclists and pedestrians until you reach Täby Centrum. Then you follow Biblioteksgången to the church and the sports centre. Walk down to Tibble gymnasium and take the first path right in between the sports fields to Åva gymnasium. (25 minutes walk)

<http://www.multimap.com/s/l4LJzQb>

Useful information about Sweden

Useful websites

www.stockholm.se

www.taby.se



Climate

Stockholm has a humid continental climate, the climate of Stockholm is extremely varied with distinct seasons. Spring and fall are cool to mild. Snowfall could occur from November to end of April, while rains occur any time of year, but mostly in the summer.

Time zone

CET (UTC+1) / Summer (DST) CEST (UTC+2)

Currency

Swedish krona

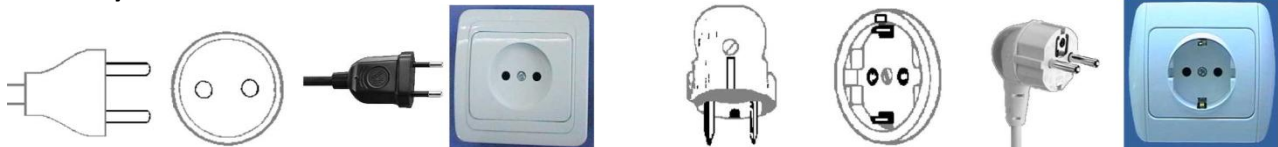
Health

Participants are recommended to check health regulations for the country concerned and to obtain comprehensive medical and accident insurance for the period of stay.

Language

English	Swedish
Hello	Hej
Please	Tack
Goodbye	Hej då
Thank you	Tack
Yes	Ja
No	Nej

Electricity



Environment: If you are interested in calculating the carbon emissions of your travel to this event and offsetting the pollution of your air travel, you should look at the projects of the climate care organisation:

www.climatecare.org

Registration fee and cancellation policy

REGISTRATION FEE

CHF 1'100.- for schools paying all IB fees in CHF only

GBP 550.- for schools paying all IB fees in £ only

USD 1'080.- for schools paying all IB fees in \$ only

The registration fee includes:

- Tuition
- Workshop materials
- Use of function rooms & technical equipment
- Local transportation between hotel and school (a 3 day pass on the public transport system will be delivered to all participants who stay at the recommended hotels. Other participants can pick up their pass from the IB site office at the host school on Day1).
- Official reception
- 2 lunches
- 6 refreshment breaks and water during workshops

IB Cancellation policy

IB Africa/Europe/Middle East regional office will reimburse 80% of the workshops package to those cancellations received up to three weeks before the beginning of the workshop. Cancellations received after this deadline and no shows will be charged with the full registration fee.

Cancellation policy will apply also in cases where a visa is refused.

IBAEM policy concerning visa applications

- **Acquiring the necessary information on whether a visa is needed, and the length of the application process, is the sole responsibility of each participant. It is essential to check visa requirements with the appropriate embassy or consulate, or with a travel agency, before registering for the event.**
- **As a general rule, passports must be valid for at least six months after a stay in any given country.**
- While the the IB makes every effort to ensure that visas are granted to all participants, the final decision of a Ministry of Foreign Affairs is beyond IB's control and the regional office is under no obligation to reimburse a registration fee in cases where a visa is not granted.
- IB Africa/Europe/Middle East Events Unit can provide a visa support letter, to be downloaded from Regis (IB online registration system) by the IB coordinator. This facility is only available to participants whose registration has been confirmed by the Events Unit. Detailed instructions can be found by clicking the visa button on the left hand side of the screen when registering.

The visa support request form is therefore no longer available in the preliminary programme.

IB safety policy

Neither the IB nor its directors, officers or agents are responsible or liable for the safety and property of participants or their companions, nor for any financial losses incurred if events are cancelled due to reasons beyond the IB's control. Travelling to and from the IB event in Stockholm shall take place under the participants' sole responsibility.

Participants are advised to seek information on potential health and security risks incurred by themselves or their companions and to secure adequate insurance coverage, which includes reimbursement of any costs incurred should the event be cancelled. Swiss law shall govern any legal issues relating to the enrolment and participation in the IB event in Stockholm.

Any disputes arising with respect to or in connection with the enrolment and participation in this event shall be finally settled by one arbitrator in accordance with the Rules of Arbitration of the Chamber of Commerce and Industry of Geneva.

Jeffrey Beard
Director General