



## **LONDON CHESS AND EDUCATION CONFERENCE**

### **Chess and Mathematics**

6 & 7 December 2014

Olympia Conference Centre  
Hammersmith Road, Kensington, London W14 8UX

[www.londonchessconference.com](http://www.londonchessconference.com)

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## **FINAL CONFERENCE PROGRAMME**

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The London Chess and Education Conference provides guidance to the scholastic chess community through sharing evidence-based best practice and encouraging international co-operation.



This programme was last published on 21<sup>st</sup> November 2014. ❶

## Classroom Chess and Mathematics

Chess is evolving – its purpose has moved towards the needs of schools. Whilst playing chess competitively remains an important motivating factor for many children, there is so much more that can be done. Chess may be regarded not as one game but as a resource for all sorts of logical and mathematical mini-games, game variants and puzzles.

The rapid rise of classroom chess has been achieved by teaching the game from the simplest beginnings. By working with children on the basic components of the game, literally one piece at a time, they grow in confidence and enthusiasm. Rather than throwing children in at the deep end, modern educational methods have been used to deconstruct the game into digestible components.

Children love playing games. Chess is accessible and clearly fun to play. It presents intellectual challenges that are rarely met so early in other subjects of study. Although learning the moves is relatively easy, playing chess well requires concentration and logical analysis. Ultimately it is not about winning – it is about solving problems objectively.

John Foley  
Director of Training and Education  
CSC

Research to be revealed at the conference has shown that playing chess is associated with improved exam results in mathematics. We look forward to the results of a major two-year study, funded by the Educational Endowment Trust, which will report next year on the academic impact of chess in the UK.

Chess is also having a positive impact on children with special educational requirements arising from autism, ADHD, dyscalculia and maths phobia etc. Many respond to chess interventions.

The Conference will report on a new game competition. Using existing chess sets, these games can add variety to chess instruction and equalise disparate playing strengths. Another purpose of the competition is to encourage creative thinking.

Teachers visiting this conference will find a fascinating melting pot of truly innovative ideas from leading chess and mathematics thinkers from around the world. This is by far the most intensive conference ever devoted to this topic.

## Saturday 6 December

### EXHIBITION OF CHESS INSTRUCTION MATERIALS 09.30-19.00

Meet and speak with the developers of chess instructional software, books and other materials.

### 09.30-11.00 REGISTRATION & REFRESHMENTS

### 11.00 CONFERENCE OPENING and WELCOME

**Malcolm Pein**

Chief Executive, Chess in Schools and Communities, UK

**Rob Eastaway**

Maths Inspiration Ltd, UK

### 11.15-12.45 KEYNOTE PRESENTATIONS

Chair: **Stefan Löffler**

**Anna Nicotera**

Senior Associate, Basis Policy Research, USA

*A Systematic Review of Research on School Chess*

**Roland Grabner**

Professor of Cognitive Science, University of Graz, Austria

*Successful Mathematics Learning: Insights from Cognitive Neuroscience*

**Wendi Fischer**

Executive Director, America's Foundation for Chess, USA

*Using Chess to Develop the Whole Child*

### 12.45-14.00 LUNCH BREAK

### 14.00 MATHEMATICS and GAMES

Chair: **John Foley**

**David Wells**

Mathematician and Author, London, UK

*The Connections between Chess and Mathematics*

**Jorge Nuno da Silva**

Professor of History and Philosophy of Science,

University of Lisbon, Portugal

*Mathematics and Games: the Meaning of Life.*

### 15.00-15.30 COFFEE BREAK

15.30-17.15

## IN-DEPTH WORKSHOPS

Conference attendees should indicate at reception which workshop they prefer to attend. The material covered in each workshop will be published after the conference.

### Workshop 1: **Mathematics and Games** Room 1

There are many good reasons to teach mathematics through abstract strategy games. This workshop provides you with well-tested examples as well as new suggestions from leading European experts in game implementation. This is a hands-on session where all participate.

<b>Alan Parr</b>	GBR
<b>J�rome Mauftras</b>	FRA
<b>Jorge Nuno Silva</b>	POR

### Workshop 3: **Academic Training for Chess Instruction** Room 304

Education faculties are increasingly adopting chess pedagogy. Co-operation with teacher colleges and providers of professional development and continuous training for teachers are key to recruit and train significant numbers of regular teachers for classroom chess.

<b>Jesper Hall</b>	SWE
<b>Leontxo Garcia</b>	ESP
<b>Mads Jacobsen</b>	DEN
<b>Alexander Kostyev</b>	RUS

### Workshop 2: **Chess in Primary School Mathematics** Room 2

The First Move Chess Curriculum in the USA and the Chess and Logic Curriculum in Hungary are prime examples of aligning chess instruction with the curricular requirements in mathematics. You will learn about chess activities and puzzles that are suitable for primary schools.

<b>Wendi Fischer</b>	USA
<b>Erzs�bet Sarl�s</b>	HUN
<b>Walter R�dler</b>	GER

### Workshop 4: **Chess for Gifted Children** Room 305

Chess as a diverse game and puzzle field opens many ways to stimulate giftedness. This is especially true for highly gifted children that are hungry for new challenges. In this workshop you learn about chess at schools for the highly gifted as well as about research on chess talent.

<b>Karel van Delft</b>	NED
<b>Roland Grabner</b>	AUT
<b>Christina Schenz</b>	GER

17.15-18.00

## PANEL DEBATE

### Promise and Limitations of Digital School Chess

The growth in digital learning systems and sophisticated chess apps has raised challenging questions. Should we opt for self-learning at school or home? What is the role of the chess tutor?

Panelists:	<b>Mads Jacobsen</b>	Executive Director, Dansk Skoleskak, Denmark
	<b>J�nos Pallagi</b>	Developer LearningChess.net, Hungary
	<b>Melissa Elliot</b>	Headteacher, Heathside Preparatory School, UK

18.00

**END OF FIRST DAY**

## SPEAKERS LIST

### **Boris and Luba Alterman**

Directors of Chess in a New Way, bringing chess into kindergartens and primary schools in Israel. About to launch their Chess World app.

### **Joaquín Fernández Amigo** (Spain)

Chess Teacher and Chess and Education Coordinator of the Autonomous University of Barcelona, where he submitted a PhD thesis on Teaching Mathematics through Chess.

### **Luis Blasco de la Cruz** (Spain)

Chess teacher, arbiter and manager of the Villalba chess club, which specializes in social chess projects. Leader of the project TDAH y Ajedrez (ADHD and Chess).

### **Rita Atkins** (Hungary / UK)

Former mathematics and science teacher now coaching chess in seven schools in Cambridgeshire and Essex. Judge in the New Game Design competition. WIM.

### **Ross Atkins** (Australia)

Doctoral student in Combinatorial Mathematics, University of Oxford. Game theorist.

### **Margit Brokko** (Estonia)

Margit is a certified chess coach and has educated chess club managers, coaches, teachers and chess arbiters. She is Chess in Schools project manager in Estonia and coordinates chess teacher training.

### **Neill Cooper** (UK)

An atmospheric physicist turned teacher in Further Mathematics. He is Manager of Schools Chess for the English Chess Federation. He runs a wide range of high level mathematics enrichment activities.

### **Karel van Delft** (Netherlands)

Chess Teacher and author, psychologist and formerly a newspaper journalist. He teaches chess at the Leonardo schools for the highly gifted and is coaching autistic children. His new book "Schoolschaken" brings wide knowledge.

### **Dijana Dengler** (Germany)

Chess teacher specialising on disadvantaged and special needs children. Coordinator at the Munich Chess Academy and the Munich Chess Foundation.

### **Alessandro Dominici** (Italy)

Manager of school chess projects in Piedmont, initiator of the Psychomotricity method of coordination games on a giant chessboard and of the educational website "Victor's Chess House". Organizer of two chess and education conferences in Turin.

### **Rob Eastaway** (UK)

Director of Maths Inspiration, a national programme of interactive lecture shows for teenagers. Over 15,000 will be attending the shows this school year. He is a former President of the UK Mathematical Association. He graduated in Engineering from Cambridge University.

### **Wendi Fischer** (USA)

Executive Director of the American Foundation for Chess in Seattle. Graduating in sociology, she was a teacher and TV producer before joining the largest provider of chess education in the USA. She is one of the designers and authors of the First Move chess curriculum, currently with 140,000 students.

### **John Foley** (UK)

Co-Director of Conference. Member of the Educational Commission of the European Chess Union. Non-Executive Director, ECF. Trains tutors. Ran Maths & Games Club before CSC. Studied philosophy at Oxford.

### **Frederic Friedel** (Germany)

Runs ChessBase, the chess database and software company based in Hamburg. Studied Philosophy and Linguistics at Hamburg and Oxford.

### **Leontxo Garcia** (Spain)

Tireless chess propagandist; a journalist, broadcaster and author active throughout the Spanish speaking world. He directed several chess and education conferences in Spain and Mexico. FIDE Master.

### **Roland H. Grabner** (Austria)

Professor of Research on Talent and Learning at the University of Graz and works in the field of educational neuroscience. His research focuses on the psychological and neural bases of successful mathematics learning. In 2007 he won a science prize with a study on the relation between chess improvement and intelligence.

### **Lilli Hahn** (Germany)

Member of the Girls Chess Commission of the German Youth Chess Association, participant of the Girls' and Women's Chess Congresses in Germany and President of the Edinburgh University Chess Club.

### **Jesper Hall** (Sweden)

Chairman of the Educational Commission of the European Chess Union. Jesper has established a major chess in schools initiative in Sweden involving 22,000 children. He is an International Master.

**Mads Jacobsen** (Denmark)

Executive Director of Dansk Skoleskak, which he built from a voluntary to a professional organisation which runs projects for Danish ministries and municipalities. Skoleskak commissioned a study on school chess from the University of Aarhus and has started a co-operation with the Copenhagen College of Education.

**Richard James** (England)

Prolific chess author and webmaster. Creator of successful primary school chess curriculum used by CSC. Founded Richmond Junior Chess Club. Chess tutor specialising in children with autism.

**Bo Johansson** (Sweden)

Psychologist and emeritus Professor of Education at the University of Uppsala, specialising in the early understanding of numbers and arithmetic. He has evaluated chess in a local primary school.

**Balazs Kecskemeti** (Northern Ireland)

Set up LogicNI in Belfast offering a chess and tutoring programme to promote logical thinking through play. Has received an Erasmus Plus award to take the project further.

**Alexander Kostyev** (Russia)

Head of chess, Russian State Social University, author of chess instruction books, school chess advisor to FIDE, founder and director of the International School Chess Union, Secretary ECU Educational Commission.

**Stefan Löffler** (Germany)

Director of the Chess and Education Conference. He founded and led until recently the largest school chess organisation in Austria and is now an advisor to several organisations on school chess. A journalist, specialising in chess, health and science, he is Director of the think tank, Chess in the Public Interest.

**Jérome Maufrais** (France)

Director of strategy games in schools development for the Créteil Academy, the Regional Education Authority of Eastern Paris. Also a teacher, author and translator, he was the school chess coordinator of the French Chess Federation until 2013. Judge in the New Game Design competition.

**Marisa van der Merwe** (South Africa)

Director and Founder of MiniChess, Africa's biggest provider of education through chess. Has just launched a MiniChess app. South African Teacher of the Year 2012.

**Anna Nicotera** (USA)

Senior Associate at Basis Policy Research, her work focuses on the impact of education policies on student and school outcomes. She was the Director of Research and Evaluation at the National Alliance for Public Charter Schools. Doctorate in Education Leadership from Vanderbilt University.

**Kevin J O'Connell** (Ireland)

Author and trainer. Sports scientist. Chairman, Chess in Schools Commission, FIDE.

**János Pallagi** (Hungary)

Founder of LearningChess.net, an online chess teaching system, and the initiator of the Free for Schools Program in Hungary. He is also co-founder and Chairman of Inter Crown Europe, an IT and networking company.

**Alan Parr** (UK)

Primary mathematics education consultant. Specialist in Key Stage 2 National Tests and has led the national analysis of pupil performance. Consultant to the Qualification and Curriculum Authority in the development of the Assessment of Pupil Progress system. Judge in the Game Design competition.

**Joreta Parsons** (South Africa)

Educational psychologist and advisor to MiniChess.

**Walter Rädler** (Germany)

Primary School Teacher, Chairman of the Deutsche Schulschachstiftung and member of the Educational Commission of the ECU.

**Beatrice Rapaccini** (Italy)

Aerospace engineer turned mathematics teacher. She developed Psychomotricity (co-ordination exercises and games) on a giant chessboard and is working with the University of Macerata on a pilot project using chess to teach Informatics in primary school.

**Giovanni Sala** (Italy)

Doctoral researcher in cognitive psychology at the University of Liverpool. His main interest is in meta-cognition, the awareness of thinking processes, in children. He will discuss the relationship between handedness and the attainment in mathematics and chess.

**Susan Sallon** (UK)

Former music and mathematics teacher who is conducting research at the psychology department of Manchester Metropolitan University. She has undertaken a statistically important study into the impact of playing chess on the thinking skills of children in the CSC programme.

**Christina Schenz** (Germany)

Professor of Primary Education at the University of Passau. Her main fields of research are inclusion, promotion of giftedness and the professionalisation of primary teachers. The educational psychologist is advisor of the Erasmus Plus school chess project CASTLE.

**Erzsébet Sarlós** (Hungary)

Director of a secondary school and a teacher of biology and of adaptive physical education. Chess and logic as well as the related talent development have been taught in her school for four years. She is one of the main authors of the Hungarian chess and logic teaching curriculum and of the chess teacher’s training course.

**Jennifer Shahade** (USA)

Philadelphia-based author, commentator and champion chess and poker player. Her books Chess Bitch (2005) and Play like a Girl (2011) promote the game to more women. Recently she helped to develop Yamie Chess, a chess and mathematics book for children.

**Jorge Nuno Silva** (Portugal)

Professor of the History and Philosophy of Science at the University of Lisbon. He specialises in recreational mathematics, mathematical games and the history of board games. He leads the Abstract Games project that reaches 80,000 secondary school students in Portugal.

**Roberto Trincherò** (Italy)

Sociologist and Professor of Education at the University of Turin. The author of several studies on the effects of chess in schools during the last decade, he has given special attention to mathematics. He advises of the Erasmus Plus school chess project CASTLE.

**David Wells** (UK)

London-based mathematics educator and author of several popular books including Games and Mathematics: Subtle Connections (2012). A former British junior chess champion, he has written a secondary mathematics course based upon problem solving.

**Magdalena Zielińska** (Poland)

School chess coordinator of the Polish Chess Federation and leader of the project Education through Chess in 300 schools.

In how many ways can you divide a chessboard into sixteen squares?

## Sunday 7 December

**EXHIBITION OF CHESS INSTRUCTION MATERIALS 09.30-19.00**

**9.30-10.30 SPECIAL INTEREST PARALLEL SESSIONS**

<p><b>Fritz &amp; Chesster</b> for your Classroom or School Server Room 1</p> <p>A demonstration of how a character-based chess learning system for young children and an online server can be used in school chess.</p> <p style="text-align: center;"><b>Frederic Friedel &amp; Pascal Simon / ChessBase</b></p>	<p><b>New Game</b> Design Competition - Open Jury Meeting Room 2</p> <p>The jury for the New Game Design Competition will discuss the entries and make their decision. The judges are</p> <p style="text-align: center;"><b>J�rome Maufra Alan Parr &amp; Rita Atkins</b></p>	<p><b>Erasmus Plus</b> Chess Projects: Meet the Successful Applicants Room 304</p> <p>Leaders of school chess projects that received European funding in the latest round talk about their experience. With</p> <p style="text-align: center;"><b>Alessandro Dominici, Luis Blasco de la Cruz, Balazs Kecskemeti &amp; Stefan L�ffler</b></p>
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10.30-12.15

**PARALLEL SESSIONS**

**SESSION A**  
Room 1

**CHESS FOR ENRICHMENT**  
Chair: **John Foley**

**SESSION B**  
Room 2

**NEW RESEARCH**  
Chair: **Stefan Löffler**

**János Pallagi**, Developer LearningChess.net &  
**Erzsébet Sarlós**, Head Teacher, Hungary  
*Chess and Logic Curriculum:  
a School-IT co-operation project*

**Marisa van der Merwe**, Director MiniChess,  
South Africa.  
*Learning with Chess: The MiniChess App  
A new app for entry phase learners.*

**Beatrice Rapaccini**  
Mathematics and Informatics Teacher, Italy  
*Introducing Primary Students to Computa-  
tional Thinking with a Giant Chess Board*

**Jérôme Maufra**  
Director of Strategy Games,  
Académie de Créteil, Paris, France  
*The Enrichment Chess Database Project:  
a Request for Co-operation.*

**Susan Sallon**  
Psychology researcher,  
Manchester Metropolitan University. UK  
*Does Early Chess Increase Cognitive Ability?  
Results from a UK Study*

**Roberto Trincherro**  
Professor of Education, University of Turin, I  
*Can School Chess Improve Maths Ability?  
A Comparison of Instructor- and Teacher-  
Based Training*

**Bo Johansson**  
Professor of Education, University of Uppsala  
*Is there a Threshold Effect of Chess Teaching?  
Observations from a Swedish Evaluation Study*

**Giovanni Sala**  
PhD Student in Cognitive Science, University  
of Liverpool  
*Can Chess Improve Metacognition in Children?*

12.15-12.45

**What is Scholastic Chess?**

Room 1

**Stefan Löffler** GER  
Chess in the Public Interest

**John Foley** UK  
Director of Training and Education, CSC

12.45-14.00

**LUNCH BREAK**

14.00-14.45

**PARALLEL SESSIONS**

Room 1

**THE CHALLENGE OF INCLUSION**

Chair: Stefan Löffler

**Christina Schenz**  
Professor of Primary Education, University  
of Passau, Germany  
*Promoting Giftedness in All Children with  
Mathematics and Chess*

**Jennifer Shahade**  
Chess Woman Grandmaster, Author and  
Commentator, Philadelphia, USA  
*"You Must Be So Good At Math" - Counting,  
Chess and Creative Thinking*

Room 2

**CHESS IN MATHEMATICS: DIDACTICS**

Chair: John Foley

**Neill Cooper**  
Head of Further Mathematics, Wilson's School  
*Using Chess to Enrich Secondary School  
Mathematics*

**Joaquín Fernández Amigo**, Educational  
Psychologist, Co-ordinator Chess and  
Education, Autonomous University of  
Barcelona, Spain  
*Teaching maths through chess activities  
(presented by **Leontxo Garcia**)*

14.45-15.15

**COFFEE BREAK**

15.15-17.00

## IN-DEPTH WORKSHOPS

Workshop 1: Room 1  
**Chess, Mathematics and Gender**

What drives the gender gap in participation rates in after-school chess? How can schools engage more girls in chess? This workshop follows up the lively debate at our 2013 conference.

**Christina Schenz** GER  
**Jennifer Shahade** USA  
**Lilli Hahn** GER

Workshop 2: Room 2  
**Early years chess**

Chess is being introduced in pre-school and infant classes which requires the development of specialised teaching methods. Pioneers of early chess education report their experiences and present ideas.

**Boris and Luba Alterman** ISR  
**Joreta Parsons** RSA  
**Marisa van der Merwe** RSA  
**Beatrice Rapaccini** ITA

Workshop 3: Room 2  
**Chess for Children with Autism and ADHD**

Chess may be more suitable for special needs education than people suppose. Chess interventions have worked surprisingly well for children diagnosed with autism or ADHD. We take a look at impressive projects and methods of intervention.

**Luis Blasco de la Cruz** ESP  
**Karel van Delft** NED  
**Dijana Dengler** GER  
**Richard James** UK

Workshop 4: Room 304  
**Advanced teaching skills**

To get the most out of chess, classroom methods need constant refinement. Qualification and accreditation schemes need to be developed which acknowledge developments in pedagogical praxis.

**Kevin O'Connell** FIDE  
**Margit Brokko** EST  
**Magdalena Zielińska** POL

Workshop 5: Room TBA  
**Chess in Secondary School Mathematics** Room 305

Chess can be used in many ways to teach arithmetic, geometry, number theory, proving theorems and more. This workshop equips you with materials suitable for enriching secondary school mathematics and maths clubs.

**Neill Cooper** UK  
**Ross Atkins** AUS

17.00-17.30

## FINAL REFLECTIONS AND CLOSING

Chairs: Stefan Löffler & John Foley

17.30

**END OF CONFERENCE**

19.00

**END OF EXHIBITION**



### **London Chess Classic – Super Rapidplay**

Competition 12.00-19.40 on both conference days includes the world elite players:

Vishy Anand	(India)	ex-World Champion and current Challenger
Vladimir Kramnik	(Russia)	ex-World Champion
Fabiano Caruana	(Italy)	World Number 2
Hikaru Nakamura	(USA)	American Number 1
Michael Adams	(England)	England Number 1
Anish Giri	(Netherlands)	World Junior Number 1

### **Chess and Mathematics Conference 2014 is brought to you by CSC - an educational charity supporting chess**

#### **Chess in Schools and Communities**

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Conference Director            Stefan Löffler  
Co-Director                        John Foley

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