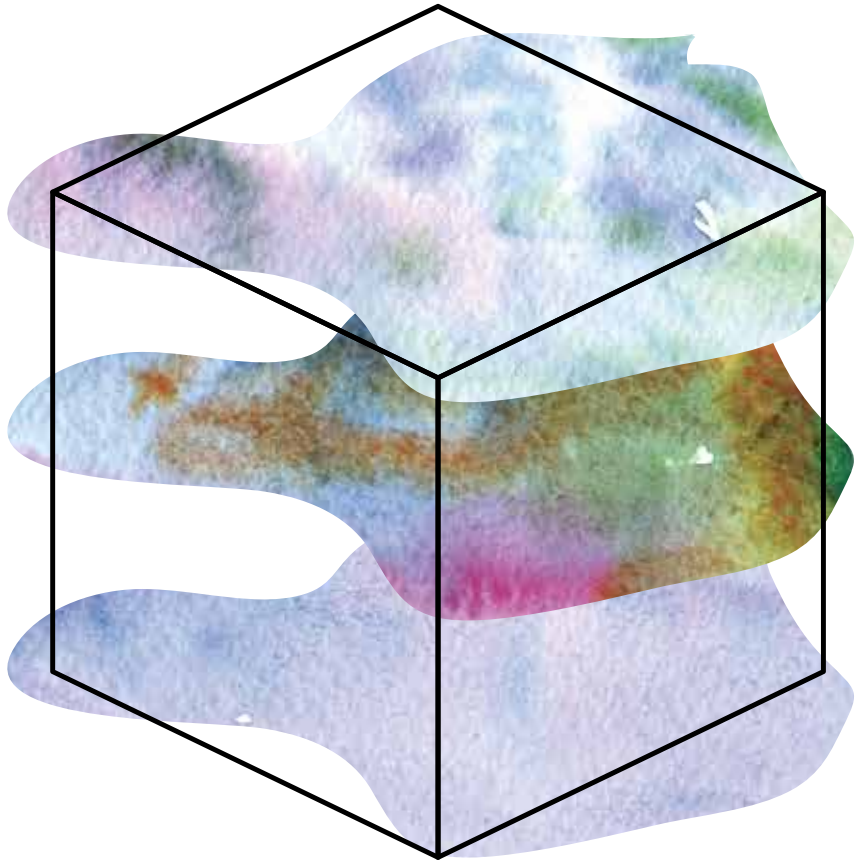


The 12th International Symposium of Cognition, Logic and Communication

# IMPACT OF VISUOSPATIAL SKILLS ON LEARNING



## PROGRAMME

31.10 – 1.11.2017  
Riga / Latvia

Organised by  
Laboratory for Perceptual and Cognitive Systems  
at the Faculty of Computing of the University of Latvia

Co-organised by the  
Faculty of Computing and  
Faculty of Business, Management and Economics  
of the University of Latvia

In cooperation with  
Accenture Latvia and  
Foundation of the University of Latvia

October 31 – November 1, 2017  
Riga, Latvia



FC | Faculty of  
Computing

FBME | Faculty of Business,  
Management and Economics

Laboratory for Perceptual and Cognitive Systems  
at the Faculty of Computing, University of Latvia

accenture



# The 12th International Symposium of Cognition, Logic and Communication “IMPACT OF VISUOSPATIAL SKILLS ON LEARNING”

## **Main theme of the symposium**

According to recent evidence from psychology and learning science, visuospatial skills are critical components in learning and might be a significant predictor of success in learning. Furthermore, external visuospatial representations scaffold variety of internal processes of reasoning ranging from everyday tasks to highly complex processes. This symposium will focus on the wide range of related topics.

## **Keynote speakers of the symposium are:**

Prof. DAVID UTTAL, Northwestern University, USA

Prof. BOB COECKE, University of Oxford, UK

Prof. MIKE STIEFF, University of Illinois at Chicago, USA

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## **Piano and guitar concert by Michael Holt**

MICHAEL HOLT from Boston, USA, will conclude the symposium with a concert in the Lielā aula of University of Latvia.

Everybody is welcome to the concert

Entrance fee - donations



## Tuesday, October 31

University of Latvia, Raiņa bulvāris 19, aud. 13 1.

16:15 – 17:30 Registration

16:30 – 17:00 Coffee

17:00 – 18:30 Panel discussion on VISUO-SPATIAL COGNITION AND ARTIFICIAL INTELLIGENCE (with Prof. Uttal, Prof. Coecke, Prof. Stieff, and Prof. Šķilters)

University of Latvia, Raiņa bulvāris 19, University restaurant “Daily” 1.

18:30 – 20:30 Welcome reception.

## Wednesday, November 1

University of Latvia, Raiņa bulvāris. 19, Lielā aula 1.

8.30 – 9.45 Registration

9.45 – 10.00 Symposium opening

10.00 – 11.00 Plenary lecture / Accenture MadScience Talk (free public access)  
“WHEN, HOW, AND WHY DOES SPATIAL THINKING MATTER IN LEARNING SCIENCE AND MATHEMATICS?”

David H. Uttal, President of Cognitive Development Society and Professor at the School of Education and Social Policy & Department of Psychology, Northwestern University, Evanston, IL, USA.

11.15 – 12.00 Parallel sessions

### Lielā aula

“COLOR VARIABILITY  
IN INTERFACE  
PERCEPTION”

Prof. Signe Bāliņa  
Dr. Dace Baumgarte  
Dr. Līga Zariņa  
Prof. Jurgis Šķilters  
(University of Latvia)

### Mazā aula

“SPATIOTEMPORAL  
VS LANGUAGE  
SKILLS IN  
CAUSATION”

Dr. Selma Coecke  
(UCL, UK)

### Auditorium 16

“TOWARDS  
ENTREPRENEURSHIP  
AND PHILANTHROPY:  
METHOD

DEVELOPMENT”  
Assoc. prof. Gundars  
Bērziņš  
Dr. Inese Muzikante  
Prof. Ivars Austers  
(University of Latvia)

12.00 – 13.00 Lielā aula

Plenary session supported by Accenture

“FROM QUANTUM PROCESSES TO COGNITION VIA PICTURES”

Bob Coecke, Professor of Quantum Foundations, Logics and Structures,  
Department of Computer Science, University of Oxford, UK

# Wednesday, November 1

University of Latvia, Raiņa bulvāris. 19, Lielā aula 1.

13.00 – 14.00 Lunch (University Restaurant ‘Daily’)

14.00 – 15.00 Plenary session

“THE VALIDITY OF VISUO-SPATIAL ABILITY FOR PREDICTING STEM ACHIEVEMENT.”

Mike Stieff, Professor, Department of Chemistry, Learning Sciences Research Institute University of Illinois-Chicago, IL, USA

15.00 – 16.30 Invited parallel workshops

## Lielā aula

“THE PARADOX OF  
TRANSFER: LESSONS  
FROM SPATIAL  
THINKING”  
WORKSHOP  
with  
Prof. David Uttal  
(Northwestern  
University, USA)

## Mazā aula

“REASONING  
PICTORIALLY:  
HOW, WHY  
AND WHEN”  
WORKSHOP  
with  
Prof. Bob Coecke  
(Oxford University,  
UK)

16.30 - 17.00 Coffee break (University Restaurant ‘Daily’) 1.

17.00 Concert by Michael Holt (piano & guitar), Boston, MA, USA.

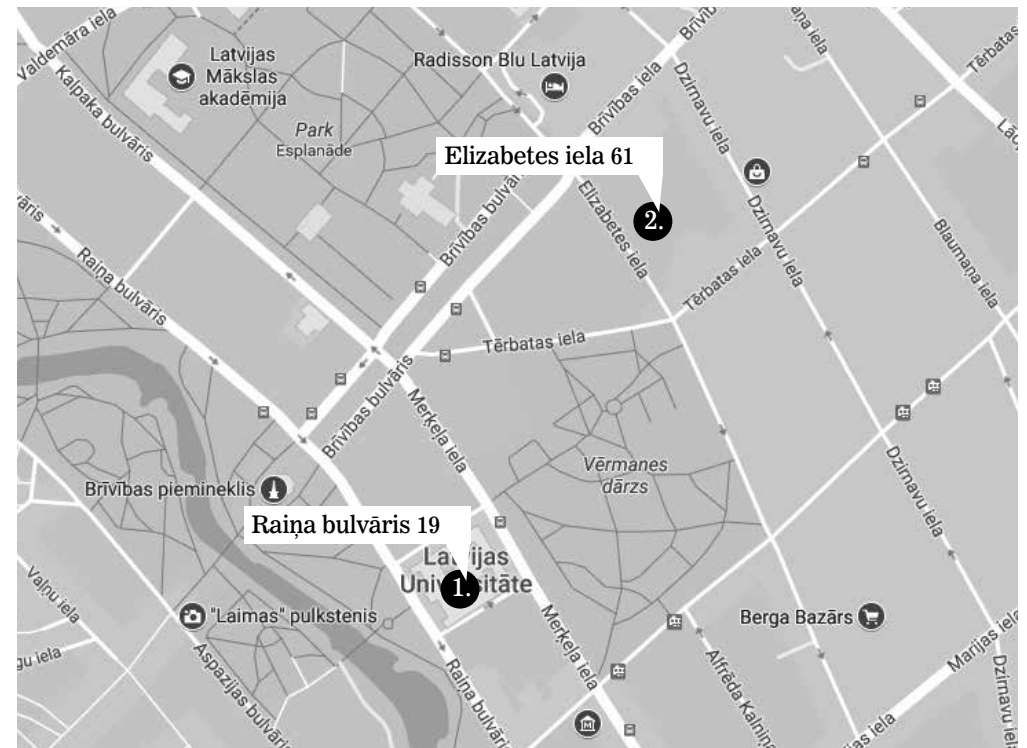
Entrance fee – donations.

University of Latvia, Raiņa bulvāris 19, Lielā aula 1.

19.00 Farewell Dinner.

Invitations only.

“Café Film Noir” at the Cinema Splendid Palace, Elizabetes iela 61 2.



1. University of Latvia, Raiņa bulvāris 19

2. “Café Film Noir” at the Cinema Splendid Palace, Elizabetes iela 61

Symposium webpage:

<http://www.lpcs.lu.lv/12th-international-symposium/>

Symposium e-mail: [lpcs@lu.lv](mailto:lpcs@lu.lv)

[www.facebook.com/PerceptualandCognitiveSystems/](https://www.facebook.com/PerceptualandCognitiveSystems/)