

Summary and Time Allocation TSG 8: Geometry

Session 1 (90 minutes): Tuesday 13th July 19:30 –21:00 [UTC+8]

- Introduction to the group [10 minutes] Michael Battista (Chair)
- 1st Long Oral [15 minutes presentation; 10 minutes discussion] **Mathematical Knots as a Teaching Material to Improve Pupils Spatial Abilities in Elementary School** (Tomoko YANAGIMOTO, Akiyo HIGASIO, Madoka KOYAMA, Hisashi KINOSHITA, Moe MIYAZAKI)
- 2nd Long Oral [15 minutes presentation; 10 minutes discussion] **The Transition from Informal to Formal Area Measurement** (Eszter HERENDINÉ-KÓNYA)
- 1st Short Oral [10 minutes presentation; 5 minutes discussion] **Tilings and Symmetry Using The Labosaique** (Paolo BELLINGERI, Emmanuelle FEAUX DE LACROIX, Eric REYSSAT, Andre SESBOUE)
- 2nd Short Oral [10 minutes presentation; 5 minutes discussion] **The Knowledge to Be Taught: A Novice Mathematics Teacher Plans to Teach Quadrilaterals in 5th Grade** (Nazlı AKAR, Mine Işıksal BOSTAN)

Session 2 (90 minutes): Friday 16th July 21:30–23:00

- Opening remarks [10 minutes] (Chair: Nathalie Sinclair)
- 3rd Long Oral [15 minutes presentation; 10 minutes discussion] **Supporting the Development of Young Children's Spatial Reasoning: Insights from the Math For Young Children (M4yc) Project** (Catherine Diane BRUCE, Zachary HAWES, Tara C FLYNN)
- 4th Long Oral [15 minutes presentation; 10 minutes discussion] **The Basic Routines of Spatial Thinking and Acting** (Marion ZÖGGELER)
- 3rd Short Oral [10 minutes presentation; 5 minutes discussion] **Developing Spatial Abilities and Geometrical Knowledge with Use of a Virtual City** (Jean-Luc DORIER, Sylvia COUTAT)
- 4th Short Oral [10 minutes presentation; 5 minutes discussion] **Understanding Path Descriptions in A Manhattan-Like Map - A Comparison of German 2nd And 3rd Graders** (Elisabeth MANTEL)

Session 3 (120 minutes): Saturday 17th July 14:30–16:00 (co-Chairs: Eszter Kónya and Haiyue Jin)

- Opening Remarks [10 minutes]
- 5th Long Oral [15 minutes presentation; 10 minutes discussion] **Impact of Teacher Professional Learning on Students Geometric Reasoning Relating to Prisms** (Ann Patricia DOWNTON)

- 6th Long Oral [15 minutes presentation; 10 minutes discussion] **Unpacking Language in Geometry Lesson on Shapes in a New Zealand Multilingual Primary Class** (Shweta SHARMA)
- 7th Long Oral [15 minutes presentation; 10 minutes discussion] **Spatial Visualisation Reasoning about 2d Representations of 3d Geometrical Shapes: The Case of G4-6** (Taro FUJITA, Yutaka KONDO, Hiroyuki KUMAKURA, Susumu KUNIMUNE and Keith JONES)
- 6th Short Oral [10 minutes presentation; 5 minutes discussion] **Exploring Second Graders Performances on Reading Comprehension of Mathematics Picture Book with Words and No-Word** (Yan-Hong CHEN)
- 7th Short Oral [10 minutes presentation; 5 minutes discussion] **Implementing the project-based approach in teaching the area of circle: An explorative study** (Jinyu YU)
- Open discussion [5 minutes]