האקדמיה הלאומית הישראלית למדעים
المجمـع الوطنــي الإســرائيلي للعلــوم والآداب
THE ISRAEL ACADEMY OF SCIENCES AND HUMANITIES

Leopoldina
Nationale Akademie
der Wissenschaften

סימפוזיון משותף לאקדמיה הלאומית הישראלית למדעים והאקדמיה הלאומית הגרמנית למדעים ליאופולדינה

Joint Symposium by the Israel Academy of Sciences and Humanities
and the German National Academy of Sciences Leopoldina

Computational Archaeology

שלישי–רביעי, י"ד–ט"ו במרחשוון תש"ף
12–13 November 2019, Jerusalem, Israel

Program

Tuesday, November 12, 2019

09:00 **Gathering**

09:30 **Welcome**
Nili Cohen, President, Israel Academy of Sciences and Humanities
Jan Nissen, German National Academy of Sciences Leopoldina

09:40 **Introduction**
Uzy Smilansky, Weizmann Institute of Science and Hebrew University
Kai-Christian Bruhn, University of Applied Sciences Mainz

Session I Automated Typologies

Chairperson: Reinhard Förtsch, German Archaeological Institute DAI

10:00 **Documentation and beyond – the Application of 3D Technology at the Israel Antiquities Authority**
Avshalom Karasik, Israel Antiquities Authority

10:30 **Integrating 3-D Methodology into Archaeological Research**
Ortal Haroch, Hebrew University of Jerusalem

11:00 Coffee Break

Session II Epigraphy / Text Analysis

Chairperson: Wolfgang Schmidle, German Archaeological Institute DAI

11:30 **Computerized Paleographic Investigation of Hebrew First Temple Period Ostraca**
Shira Faigenbaum, Tel Aviv University

12:00 **From Puzzles to Science Fiction: Contributions of the Israel Antiquities Authority to the Preservation and Study of the Dead Sea Scrolls**
Pnina Shor, Israel Antiquities Authority and Israel Museum

12:30 **Computational Analysis of Manuscripts and Pottery**
Nachum Dershowitz, Tel Aviv University

13:00 Lunch Break

Session III Excavation Recording and Publication

Chairperson: Amihai Mazar, The Hebrew University of Jerusalem

14:15 **iDAI.field 2.0: A Modern Approach to Fieldwork Recording**
Sebastian Cuy & Daniel de Oliveira, German Archaeological Institute DAI

14:45 **Archaeology and Data-Driven Humanities Research**
Kai-Christian Bruhn, University of Applied Sciences Mainz

Session IV Machine Learning / Deep Learning

Chairperson: TBA

15:15 **Deep Learning in Archaeology**
Filipe Natalio, The Weizmann Institute of Science

15:45 **4D-Reconstruction: Monitoring Archaeological Sites and Findings Using Automated Classification Techniques**
Marco Block-Berlitz, HTW Dresden - University of Applied Sciences

16:15 **Approaching Machine Learning for Archaeological Research Infrastructure**
Simon Hohl, German Archaeological Institute DAI

16:45 **Concluding**
Israel Finkelstein, Tel Aviv University
Reinhard Förtsch, German Archaeological Institute DAI

Wednesday, November 13, 2019

Session V Computational Chronology

Chairperson: Sebastian Cuy, German Archaeological Institute DAI

09:30 **ChronoLog: A Tool for Computer-Assisted Chronological Research**
Eythan Levy, Tel Aviv University

10:00 **ChronOntology, a Period Gazetteer for the Archaeologies and Historical Sciences**
Wolfgang Schmidle, German Archaeological Institute DAI

Session VI Data Driven Analysis

Chairperson: Israel Finkelstein, Tel Aviv University

10:30 **Modelling Long-Term Settlement Evolution: The Case Study of the Pontine Region (Central Italy) from the Archaic to Mid-Imperial Period (c. 600 B.C. – A.D. 250)**
Eleftheria Paliou, University of Cologne

11:00 **The Computability of Archaeology: Theoretical and Practical Boundaries of Extreme Data Processing**
Benjamin Ducke, German Archaeological Institute DAI

11:30 **Concluding**
Israel Finkelstein, Tel Aviv University
Reinhard Förtsch, German Archaeological Institute DAI

11:45 Closing Lunch

Steering Committee: Israel Finkelstein, Reinhard Förtsch

בבית האקדמיה הלאומית הישראלית למדעים, כיכר אלברט איינשטיין, רחוב ז'בוטינסקי 43, ירושלים | חניה ציבורית ברחובות הסמוכים לאקדמיה
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