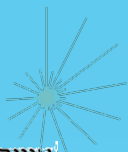




ILASOL



אוניברסיטת בן-גוריון בנגב  
Ben-Gurion University of the Negev



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Inspiring Awe & Wonder

# The Israel Society for Astrobiology and the Origin of Life (ILASOL)

36<sup>th</sup> annual meeting, Thursday May 18, 2023

9:00 AM Chemistry Building (43), Ben-Gurion University, Beer Sheva

08:40-09:00 Refreshments & Gathering

## Session 1 – Astrobiology, Astrophysics and Astrochemistry (Nathaniel Wagner)

- |             |                       |   |
|-------------|-----------------------|---|
| 9:00-9:10   | Gonen Ashkenasy (BGU) | Opening Remarks   |
| 9:10-9:30   | Tamar Stein (HUJI)    | Molecular Complexity in the interstellar medium             |
| 9:30-9:50   | Amri Wandel (HUJI)    | Exo-Life under Ice: extending the Habitable Zone            |
| 9:50-10:10  | Joseph Gale (HUJI)    | Impact of Artificial Intelligence on Astrobiology           |
| 10:10-10:30 | Yifat Miller (BGU)    | Evolution and roles of neuropeptides in amyloid aggregation |
| 10:30-11:00 | Coffee break          |   |

## Session 2 – Prebiotic Chemistry and Systems Chemistry (Gonen Ashkenasy)

- |             |                             |   |
|-------------|-----------------------------|---|
| 11:00-11:15 | Moran Frenkel-Pinter (HUJI) | Minerva Center for Studying the Planetary Emergence of Life   |
| 11:15-11:45 | Dieter Braun (LMU)          | <b>Keynote:</b> Towards a prebiotic evolution machine using 2',3'-cyclic RNA chemistry                              |
| 11:45-12:05 | Addy Pross (BGU)            | Mind from matter: Can mind be integrated into evolutionary theory?  |
| 12:05-12:25 | Dana Laor Bar-Yosef (TAU)   | Unraveling Metabolostasis: how did mechanisms preventing metabolite aggregation emerge throughout evolution?        |
| 12:25-12:45 | David Avnir (HUJI)          | On the correlation between the enantiomeric excess of L-isovaline and hydrous alteration in carbonaceous meteorites |
| 12:45-13:05 | Nathaniel Wagner (BGU)      | Life, Complexity and Order  |
| 13:05-14:15 | Lunch + Poster session      |   |

## Session 3 – Ilasol young scientists (Dana Laor Bar-Yosef)

- |             |                            |   |
|-------------|----------------------------|---|
| 14:15-14:30 | Pau Capera-Aragones (HUJI) | Unrevealing the mechanisms underlying combinatorial compression in evolving chemical mixtures |
| 14:30-14:45 | Avraham Binnenfeld (TAU)   | Detecting Planets in the Presence of Measurement Uncertainties: A Model-Independent Approach  |
| 14:45-15:00 | Noy Saad (BGU)             | Prebiotic Peptide Fibrils as Stereoselective Catalysts  |
| 15:00-15:15 | Chengqian Yuan (IPE/TAU)   | Self-coacervates of Amino Acid as Minimalistic Biomimetic Protocell                           |
| 15:15-15:40 | Coffee break               |   |

## Session 4 – Evolution (Moran Frenkel-Pinter)

- |             |                           |   |
|-------------|---------------------------|---|
| 15:40-16:10 | Jeremy England            | <b>Keynote:</b> Self-Organization of Lifelike Behaviors                           |
| 16:10-16:30 | Doron Lancet (WIS)        | Attractor dynamics drives self-reproduction in protobiological catalytic networks |
| 16:30-16:50 | Lianet Noda Garcia (HUJI) | Protein promiscuity as a proxy to multifunctional enzymes from reduced genomes    |
| 16:50-17:10 | Ilana Agmon (Technion)    | Can we unravel the origin of translation  |
| 17:10-17:30 | Rami Pugatch (BGU)        | A unifying framework for bacterial growth laws                                    |
| 17:30       | Closing remarks           |   |