



## פרופסור אלכס צונגר

אוניברסיטת קולורדו בולדר  
בולדר, קולורדו, ארה"ב

### Professor Alex Zunger

University of Colorado Boulder  
Boulder, Colorado, USA

Workshop | סדנא

## FRONTIERS IN ATOMIC-SCALE UNDERSTANDING OF PROPERTIES OF MATTER VIA THEORETICAL AND COMPUTATIONAL QUANTUM APPROACHES

**Background:** Numerous contemporary high technologies are enabled by unique properties of special molecules and solids. Identifying them and predicting their relevant properties poses challenges addressed by modern theoretical and computational techniques that will be presented and debated.

**Format:** A few short prompting expert presentations from the perspectives of physics, chemistry and engineering will be followed by open discussions and questions from the audience. Those who are interested in presenting 1-2 slides on challenging problems, directly related to the topics below, are welcome. Please send your slides to [hirshb@tauex.tau.ac.il](mailto:hirshb@tauex.tau.ac.il) by April 17<sup>th</sup>.

**Topics will include:** Theory of Matter, Density Functional Theory, Artificial Intelligence for Materials, Molecular Dynamics.

#### Speakers:

Alex Zunger – Energy & Materials, Physics, CU Boulder

Guy Cohen – Chemistry, TAU

Leeor Kronik – Materials, WIS

Amnon Aharoni – Physics, TAU

Amir Natan – Engineering, TAU

Barak Hirshberg – Chemistry, TAU

15 min. + discussion per speaker

The Workshop will be held on Sunday  
24 April 2022, at 09:00 – 13:00  
Room 011, Engineering Classroom Building  
Tel Aviv University, Ramat-Aviv

הסדנא תתקיים ביום ראשון  
24 באפריל 2022, בין השעות 09:00 - 13:00  
חדר 011, בניין כיתות הנדסה  
אוניברסיטת תל-אביב, רמת-אביב

Light refreshments will be served | כיבוד קל יוגש