

August 10, 2020

Dear ICS members,

It is my pleasure to announce that the winner of the 2020 ICS-Uri Golik Prize for an Excellent Graduate Student is **Mr. Yair Segev** of the Department of Chemical and Biological Physics, the Weizmann Institute of Science.

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Mr. Yair Segev

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Yair Segev was born in Haifa in 1986, joined the Technion Excellence Program, took a personalized curriculum combining aerospace engineering and physics, and in 2008 obtained his B.Sc. *summa cum laude* from the Department of Aerospace Engineering. He then served as an IDF officer for six years, researching and developing various aerospace applications, and continued his work in the industry. During that time, Yair completed his M.Sc. *magna cum laude* (2014) at the Technion, under the supervision of Prof. Gil Iosilevskii, developing a novel model for insect flight, combining elements of unsteady aerodynamics with biomechanical considerations.

In 2015 Yair joined the research of Prof. Ed Narevicius at the Weizmann Institute. His Ph.D. research explores chemical and physical phenomena unique to extremely low temperatures, where quantum mechanics dominates the interactions between particles of matter, and atoms behave like waves. Yair is applying experimental and computational tools, which he borrows from aerospace engineering to develop a new cooling technique that could bring molecules to these temperatures. He aims to observe "ultracold" chemical reactions and perhaps form new states of quantum matter. He achieved the first observation of cold collisions between naturally occurring, trapped molecules, an essential milestone to "ultracold" molecules. His method substantially enhances the flux of molecular beams, a prevalent tool for studying chemical physics reactions by defeating a decades-old limit related to supersonic flows. Yair has published in *Nature*, *Science Advances*, and *PRL*. His list of awards includes the JFK Prize from the Feinberg Graduate School, the Perlman Grant (WIS), the Seginer Prize (Technion), and a 3-year Azrieli Fellowship. He volunteered at the Davidson Institute of Science Education, lecturing to pupils. He recently assisted in research for the Israeli government advisory team during the COVID-19 pandemic, constructing mathematical models to analyze testing schemes and public measures. He was recently selected for the Rothschild postdoctoral fellowship and the VATAT fellowship for quantum research technology.

The award ceremony will take place during the 86th ICS Annual Meeting on February 2, 2021.
Congratulations to Yair for his achievements!

Ehud Keinan