

The 7th "Seminar on Star Formation and Astrochemistry in Toruń" (SFAT) - everyone is welcome!

Friday, March 6, 2020,
Institute of Physics NCU Toruń, lecture room no. 20

- 11:30 - 12:00 Welcome coffee and snacks (next to room no. 20)
- 12:00 - 12:30 *Formation of the H₂D⁺ molecule in the universe*
Niyazi Bulut (Firat University, Turkey)
- 12:30 - 13:00 *Photochemistry and spectroscopy of some simple pnictogen-containing molecules of astrochemical significance*
Robert Kołos (IChF PAN)
- 13:00 - 13:30 *Between quantum mechanics and thermodynamics – second virial coefficient of helium*
Paweł Czachorowski (University of Warsaw)
- 13:30 – 14:30 *Lunch break at the Institute of Physics (Atrium COK)*
- 14:30 - 14:50 *Light induced chemistry in interstellar ices analogous*
Marcin Gronowski (University of Warsaw/IChF PAN)
- 14:50 - 15:10 *Charge localization/delocalization in molecules and solids*
Marta Gałyńska (University of Iceland)
- 15:10 - 15:30 *Collisional effects in the shapes of optical molecular resonances*
Hubert Jóźwiak (UMK)
- 15:30 End of the official part of the meeting

The 6th "Seminar on Star Formation and Astrochemistry in Toruń" (SFAT) - everyone is welcome!

Friday, January 24, 2020,
Institute of Physics NCU Toruń, lecture room no. 20

- 11:30 - 12:00 Welcome coffee and snacks (next to room no. 20)
- 12:00 - 12:30 *The icy Universe: experiments, observations, and models*
Will Rocha (Niels Bohr Institute, University of Copenhagen)
- 12:30 - 13:00 *Searches for exoplanets, all we actually see are stars!*
Andrzej Niedzielski (Nicolaus Copernicus University in Torun)
- 13:00 - 13:30 *Long-range-corrected multiconfiguration density functional with the on-top pair density*
Michał Hapka (University of Warsaw)
- 14:30 - 14:50 *Ortho- and para-H₂ in interstellar clouds*
Piotr Gnaciński (University of Gdansk)
- 14:50 - 15:10 *Connecting light and dark side of the universe*
Anna Durkalec (National Center for Nuclear Research, Warsaw)
- 15:10 - 15:30 *Cold dust in dust-rich galaxies observed with ALMA - a challenge for SED modeling routines*
Katarzyna Małek (National Center for Nuclear Research, Warsaw)
- 15:45 - 16:05 *Mars Desert Research Station in Utah, US - stay at the Martian base*
Natalia Zalewska (Space Research Center, Polish Academy of Sciences)
- 16:05 - 16:20 *How to take a photo of a forest - molecular spectroscopy with a frequency comb*
Grzegorz Kowzan (Nicolaus Copernicus University in Torun)
- 16:20 - 16:35 *Systematic studies of the interaction energies of open-shell non-covalent systems with interaction-type diverse data set*
Katarzyna Madajczyk (Nicolaus Copernicus University in Torun)
- 16:35 - 16:50 *Star-forming main sequence for galaxies out to redshift 7*
Krzysztof Lisiecki (Nicolaus Copernicus University in Torun)
- 16:50 - 17:05 *Properties of evolved giants in symbiotic binaries*
Daniel Pieńkowski (Nicolaus Copernicus Astronomical Center, Warsaw)
- 16:45 End of the official part of the meeting

The 4th "Seminar on Star Formation and Astrochemistry in Toruń" (SFAT) - everyone is welcome!

Friday, October 25, 2019, Institute of Physics NCU Toruń, room no. 29

- 11:30 - 12:00 Welcome coffee and snacks (next to room no. 29)
- 12:00 - 12:30 *Ultracold ion-atom collisions in the quantum regime*
Michał Tomza (UW)
- 12:30 - 13:00 *Dissociation energy and rovibrational spectrum of molecular hydrogen*
Mariusz Puchalski (AMU Poznań)
- 13:00 - 13:30 *Quantum-mechanical non-Born-Oppenheimer calculations of small atoms and molecules*
Monika Stanke (UMK Toruń)
- 14:30 - 14:50 *Singly-linked Hylleraas method for four electron atoms and beyond*
Tymon Kilich (PG Gdańsk)
- 14:50 - 15:10 *Furan fragmentation upon ion and photon collisions. Combined theoretical and experimental study*
Ewa Erdmann (PG Gdańsk)
- 15:10 - 15:30 *Algorithm for calculating Bethe logarithm for atoms and small molecules*
Ewa Palikot (UMK Toruń)
- 15:30 End of the official part of the meeting

The 3rd "Seminar on Star Formation and Astrochemistry in Toruń" (SFAT) - everyone is welcome!

Friday, May 17, 2019, Institute of Physics NCU Toruń, room no. 20

- 11:30 - 11:40 Introduction - Agata Karska / Maciej Koprowski (NCU Toruń)
- 11:40 - 12:10 *The discovery of a hot cocoon around an exploding supernova: the source of heavy elements*
Michał Michałowski (AMU Poznań)
- 12:10 - 12:40 *Qualitative insights from computational chemistry*
Katharina Boguslawski (NCU Toruń)
- 12:40 - 13:00 *Modeling SiS variability in IRC+10216*
Mirosław Schmidt (CAMK Toruń)
- 13:00 - 14:00 *Lunch break*
- 14:00 - 14:15 *Absolute intensities and photolytic behaviour of methyl mercaptan (HS-CH₃), ethyl mercaptan (HS-CH₂CH₃) and dimethyl sulfide (CH₃-S-CH₃) in solid Ar and in CO*
Joanna Zapła (University of Warsaw)
- 14:15 - 14:30 *Searching for new physics with molecular lattice clocks*
Mateusz Borkowski (NCU Toruń)
- 14:30 - 14:45 *Mid-Infrared Spectroscopy of Dark Cloud, DC 314.8-5.1*
Emily Kosmaczewski (UJ Kraków)
- 14:45 - 15:00 *Galaxy Main Sequence at $z \sim 1$ with VIPERS*
Mateusz Rałowski (UJ Kraków)
- 15:00 - 15:15 *Coffee break*
- 15:15 - 15:30 *Computational Astrochemistry: H₂O-H₂ Collisions*
Michał Żółtkowski (NCU Toruń)
- 15:30 - 15:45 *CMA I-224 star forming region with KMOS*
Dominika Itrich (NCU Toruń)
- 15:45 - 16:00 *Assessing the accuracy of simplified Coupled Cluster methods for electronic excited states in f₀ actinide compounds*
Artur Nowak (NCU Toruń)
- 16:00 - 16:15 *K-band continuum and emission-line maps of YSO candidates with Very Large Telescope in Chile*
Mateusz Zieliński (University of Warsaw)
- 16:15 - 16:30 *Detecting molecules with IRAM 30 submillimetre telescope*
Agnieszka Mirocha (UJ Kraków)
- 15:30 End of the official part of the meeting

The 2nd “Seminar on Star Formation and Astrochemistry in Toruń” (SFAT) - everyone is welcome!

Friday, April 26, 2019, Institute of Physics NCU Toruń, room no. 20

- 11:30 - 11:40 Introduction - Agata Karska / Maciej Koprowski (NCU Toruń)
- 11:40 - 12:10 *Van der Waals interaction energy surfaces for high resolution spectroscopy*
Piotr Jankowski (NCU Toruń)
- 12:10 - 12:30 *Star formation in the outer Galaxy as a stepping stone to understand how stars and planets formed in the early Universe*
Agata Karska (NCU Toruń)
- 12:30 - 12:45 *Vibrational Overtone Spectra of medium-sized molecules*
Marcin Gronowski (University of Warsaw)
- 12:45 - 13:00 *Star formation around the Galactic HII region RCW120*
Miguel Figueira (NCBJ Warsaw)
- 13:00 - 14:00 *Lunch break*
- 14:00 - 14:30 *Cold molecules and cold collisions*
Piotr Żuchowski (NCU Toruń)
- 14:15 - 14:30 *PAHs in pre star-forming systems*
Emily Kosmaczewski (UJ Kraków)
- 14:30 - 14:45 *Modelling of spectral energy distributions of young stellar objects in the Outer Galaxy*
Ilknur Gezer (CAMK Toruń)
- 15:00 - 15:15 *Coffee break*
- 15:15 - 15:30 *Dust attenuation curves in high-redshift galaxies*
Maciej Koprowski (NCU Toruń)
- 15:30 - 15:45 *Non-covalent interactions in the strongly correlated regime within Coupled Cluster theory*
Filip Brzęk (NCU Toruń)
- 15:45 - 16:00 *Simulations of electrons in cosmic rays from galactic winds*
Mateusz Ogrodnik (NCU Toruń)
- 16:00 End of the official part of the meeting

