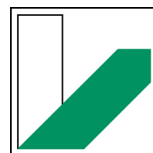


# Physikalisches Kolloquium



UNIVERSITÄT  
BAYREUTH

## Molecular excitons and plasmons - physical pictures in quantum chemistry

Datum: Dienstag, 23. Mai 2023 | Zeit: 17:00 – 18:00 Uhr | Raum: H15 (NW I)



The many-body wavefunctions of electronic excited states of molecular systems are often very difficult to interpret. Therefore, we develop direct “excited” state methods based on the algebraic diagrammatic construction (ADC) scheme and exploit its intermediate state representation (ISR) formalism to derive simple and easily accessible tools for interpretation. In this talk, a brief introduction into the ADC/ISR formalism will be given and its potential highlighted. Then a new exciton analysis of molecular systems is present and instructive examples shown, before a practical way of how to identify plasmons in extended molecular systems is outlined.

**Prof. Dr. Andreas Dreuw**

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