7. Dichtefunktionaltage in Tübingen September 16-18, 2019 (Density Functional Days in Tübingen)

organized by Roland Roth, Martin Oettel (Uni Tübingen), and Joe Brader (Uni Fribourg)

Location: Schloß Hohentübingen

Fürstenzimmer

Monday, Sep 16		**Molecular Systems and Anisotropic Particles Crystals and Quasicrystals**
14.00 - 14.30	Guillaume Jeanmairet (Paris)	Using Molecular Density Functional Theory to study electron transfer reaction in water
14.30 - 15.00	Maximilien Levesque (Paris)	Molecular DFT: first steps toward drug discovery
15.00 - 15.30	Matthieu Marechal (Erlangen)	Improving FMT for non-spherical particles
15.30 - 16.00		*Coffee Break*
16.00 - 16.30	Andy Archer (Loughborough)	Deriving phase field crystal theory from dynamical density functional theory: consequences of the approximations
16.30 - 16.50	Alberto Scacchi (Loughborough)	A simple path to find soft quasicrystals in binary mixtures
16.50 - 17.20	Rudolf Haussmann (Konstanz)	Density functional approach to nonlinear elasticity
17.20 - 17.40	Johannes Häring (Konstanz)	Broken translational and rotational symmetries in 3D. How many Nambu-Goldstone modes and elastic variables emerge?
17.50 - 19.00		*Posters and discussion with beer and wine*

Tuesday, Sep 17		**Electrostatics Wetting and Nucleation**
9.30 - 10.00	Andreas Härtel (Freiburg)	DFT and electric double layers
10.00 - 10.30	Dirk Gillespie (Chicago)	Energetics of the electrical double layer: How balancing DFT terms defines counterion adsorption
10.30 - 10.50	Rolf Stierle (Stuttgart)	Interface Analysis of Droplet Coalescence via Dynamic Density Functional Theory
10.50 - 11.20		*Coffee Break*
11.20 - 11.50	Jim Lutsko (Bruxelles)	Using DFT to understand nucleation: the coarse-grained versus ensemble free energy controversy revisited
11.50 - 12.10	Petr Yatsyshin (London)	Wetting on striped walls: interplay between pre-wetting and interface unbending
12.10		*Workshop photo*
12.15 - 14.00		*free (self-organized lunch)*

		Theory of Inhomogeneous Condensed Matter
14.00 - 14.30	Robert Evans (Bristol)	Wetting and Drying at High Temperatures: the Topology of the Surface Phase Diagram
14.30 - 15.00	Hendrik Hansen-Goos (Tübingen)	Fractional powers in scaled-particle theory of the hard-disk fluid
15.00 - 15.30	Matthias Krüger (Göttingen)	Correlations and Forces in Non-equilibrium Fluids
15.30 - 16.00	Roland Roth (Tübingen)	Wetting in the Semi-Quantummechanical Limit
16.00 - 16.30		*Coffee Break*
16.30 - 17.00	Martin Oettel (Tübingen)	Density Functionals from Machine Learning
17.00 - 17.30	Andrea Gambassi (Trieste)	The force of being critical
17.30 - 18.00	Klaus Mecke (Erlangen)	Space - Time - Matter: Finite Projective Geometry as a Quantum World with Elementary Particles
19.00		*Conference dinner*

Wednesday, Sep 18		**Dynamics**
9.30 - 10.00	Matthias Schmidt (Bayreuth)	Progress in power functional theory
10.00 - 10.20	Jonas Landgraf (Bayreuth)	Nonequilibrium orientational ordering of repulsive rods in two dimensions
10.20 - 10.40	Kiril Asheichyk (Göttingen)	Response of active Brownian particles to shear flow
10.40 - 11.10		*Coffee Break*
11.10 - 11.40	Serafim Kalliadasis (London)	General Framework for Fluctuating Dynamic Density Functional Theory
11.40 - 12.10	Daniel de las Heras (Bayreuth)	Power functional approximation for Newtonian dynamics
12.30		*Closing remarks*