

LMU

LUDWIG-  
MAXIMILIANS-  
UNIVERSITÄT  
MÜNCHEN

### Organizers

Prof. Dr. Rupert Frank  
Prof. Dr. Phan Thành Nam

### Location

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Farewell celebration in honor of Heinz Siedentop

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[www.mathematik.uni-muenchen.de/~nam/Heinzfest](http://www.mathematik.uni-muenchen.de/~nam/Heinzfest)

Conference on

# Recent Results on Quantum Many-Body Systems

May 7–9, 2018

Herrsching (near Munich)

Herrsching

With generous support by:

**DFG** Deutsche  
Forschungsgemeinschaft

## Sunday, May 6

04:00 pm **Registration**

*06:30 – 07:30 pm / Dinner*

07:30 – **Introduction:**

08:00 pm **Rupert Frank** and **Phan Thành Nam**

*Afterwards* **Get together:** „Informal open problem session“

## Monday, May 7

*07:30 – 09:00 am / Breakfast*

09:00 am ■ **Elliott Lieb**, Proof of a Conjecture of Carbery

09:45 am ■ **Rafael Benguria**, Gagliardo-Nirenberg-Sobolev inequalities for convex domains in  $\mathbb{R}^d$

*10:30 – 11:00 am / Coffee break*

11:00 am ■ **Jan-Philip Solovej**, Universality of Born-Oppenheimer curves for diatomic molecules

11:45 am ■ **Li Chen**, The Maximal Negative Ion of the Time-Dependent Thomas-Fermi and the Vlasov Atom

*12:30 – 01:30 pm / Lunch*

02:00 pm ■ **Benjamin Schlein**, Excitation spectrum of Bose-Einstein condensates

02:45 pm ■ **Edgardo Stockmeyer**, Asymptotic dynamics for certain 2-D magnetic quantum systems

*03:30 – 04:00 pm / Coffee break*

04:00 pm ■ **Dirk Hundertmark**, Cwikel's bound reloaded

04:45 pm ■ **Bernard Helffer**, On the extended Courant nodal property: examples and counterexamples

*06:30 – 07:30 pm / Dinner*

*Afterwards* **Get together:** „Informal open problem session“

## Tuesday, May 8

*07:30 – 09:00 am / Breakfast*

09:00 am ■ **Robert Seiringer**, Bose-Einstein Condensation in a Dilute, Trapped Gas at Positive Temperature

09:45 am ■ **Christian Hainzl**, The interacting Fermi gas: A step beyond Hartree-Fock

*10:30 – 11:00 am / Coffee break*

11:00 am ■ **Kenji Yajima**, Threshold singularities and  $L^p$ -boundedness of wave operators for two dimensional Schrödinger operators with point interactions

*12:00 – 01:30 pm / Lunch*

*01:30 pm / Social activities*

*07:00 – 08:30 pm / Conference Dinner*

*Afterwards* **Get together:** „Informal open problem session“

## Wednesday, May 9

*07:30 – 09:00 am / Breakfast*

09:00 am ■ **László Erdős**, Matrix Dyson equation in random matrix theory

09:45 am ■ **Marcel Griesemer**, Spectral Theory of the Fermi Polaron

*10:30 – 11:00 am / Coffee break*

11:00 am ■ **Timo Weidl**, Edge resonances in elastic media with zero Poisson coefficient

11:45 am ■ **Rudi Weikard**, Spectral Theory for Systems of Ordinary Differential Equations with Distributional Coefficients

*12:30 – 01:30 pm / Lunch*

02:00 pm ■ **Michael Loss**, A Quantum Kac Model

02:45 pm ■ **Semion Wugalter**, Van der Waals Interactions of Heavy Atoms

*03:30 – 04:00 pm / Coffee break*

04:00 pm ■ **Volker Bach**, The Witten Laplacian and Infrared Bounds

04:45 pm ■ **Mathieu Lewin**, A compactness theorem for chemical reactions in quantum mechanics

*06:30 – 07:30 pm / Dinner*

**Get together:** „Informal open problem session“

## Thursday, May 10

**Departure** after *breakfast*