

# AG Toschi



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**D. Springer**

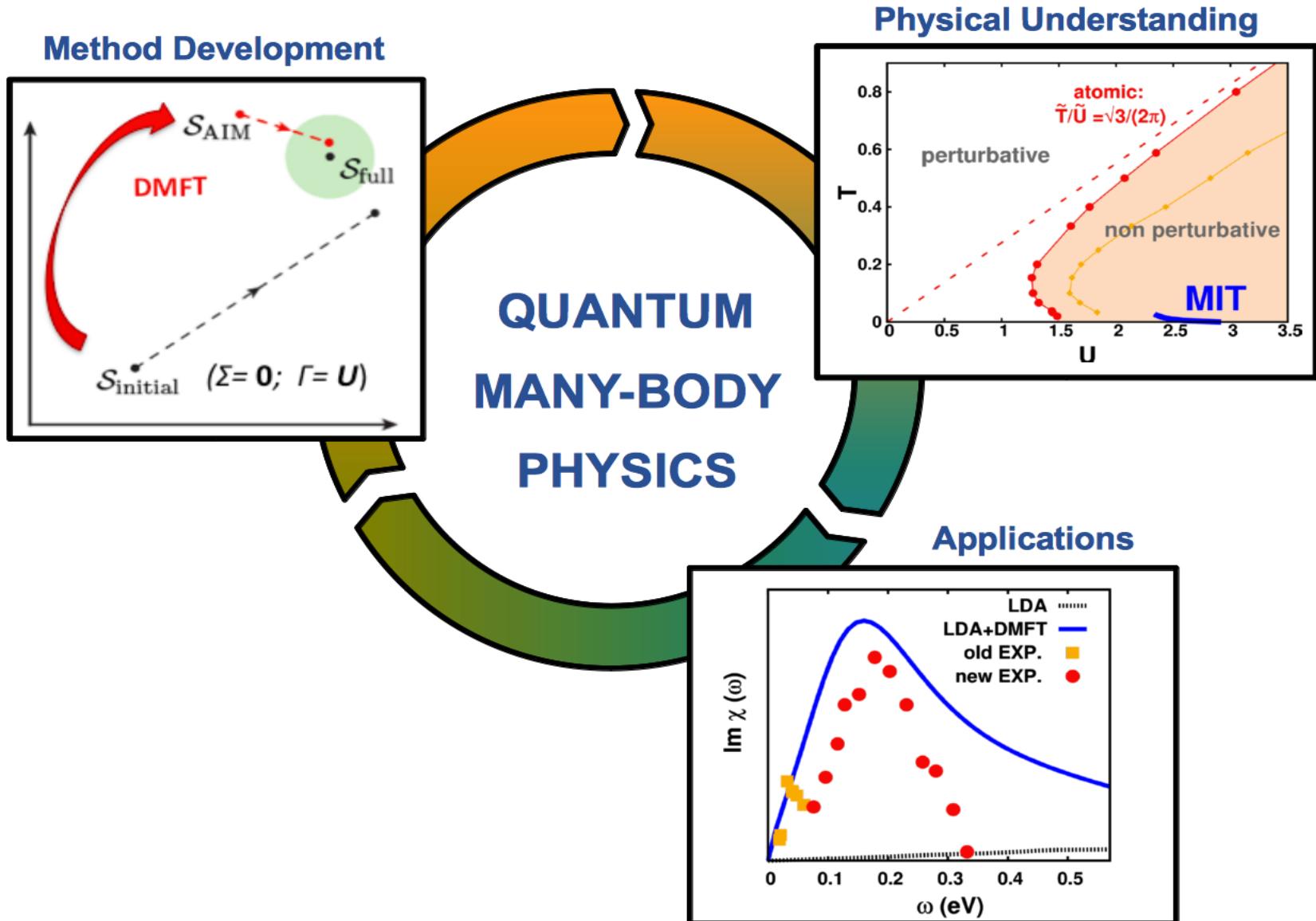


**M. Reitner**

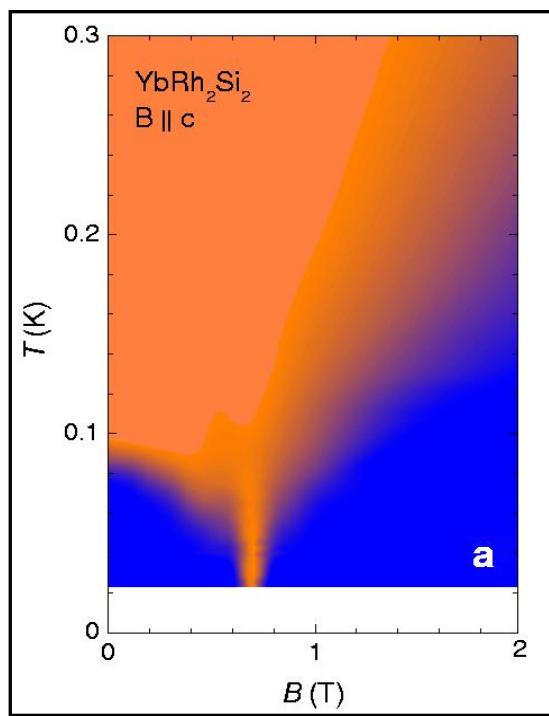
*Further close collaborations:*

P. Oberleitner (PA) & A. Vock (former MA) // C. Watzenböck & J. Tomczak (AG Held)

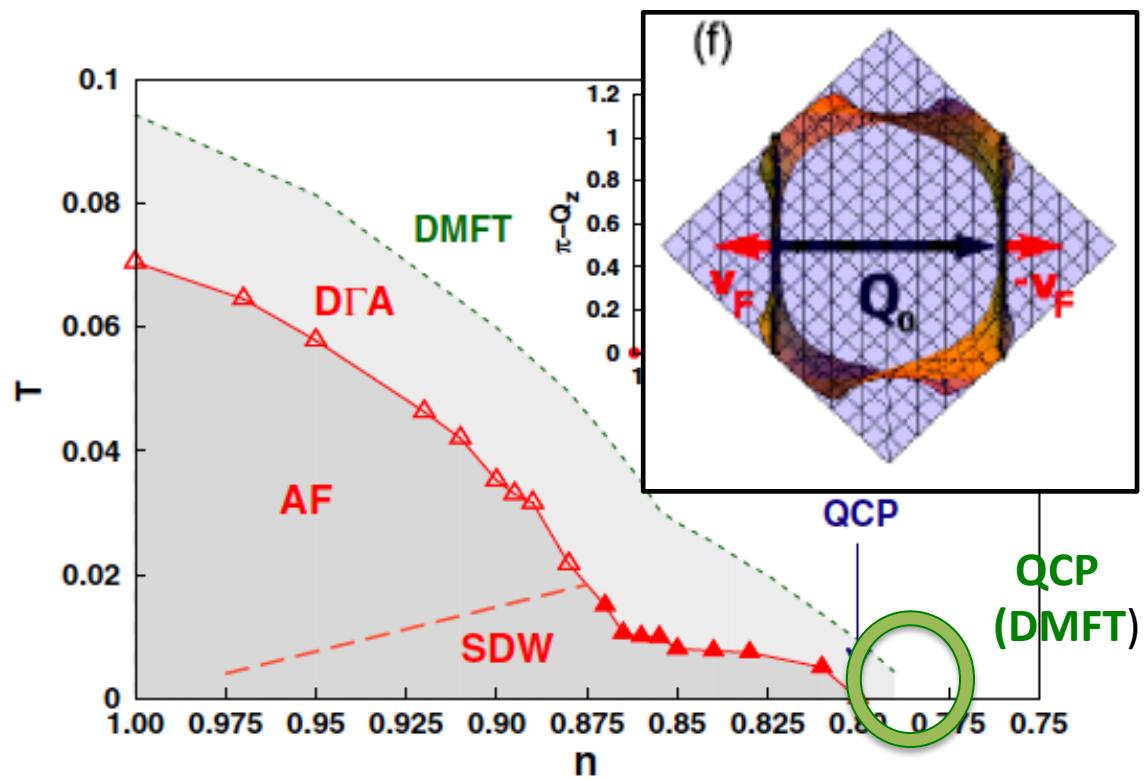
# AG Toschi



# \*) Quantum criticality in 2D/3D metals (MA)



J. Custer et al., Nature (2003)



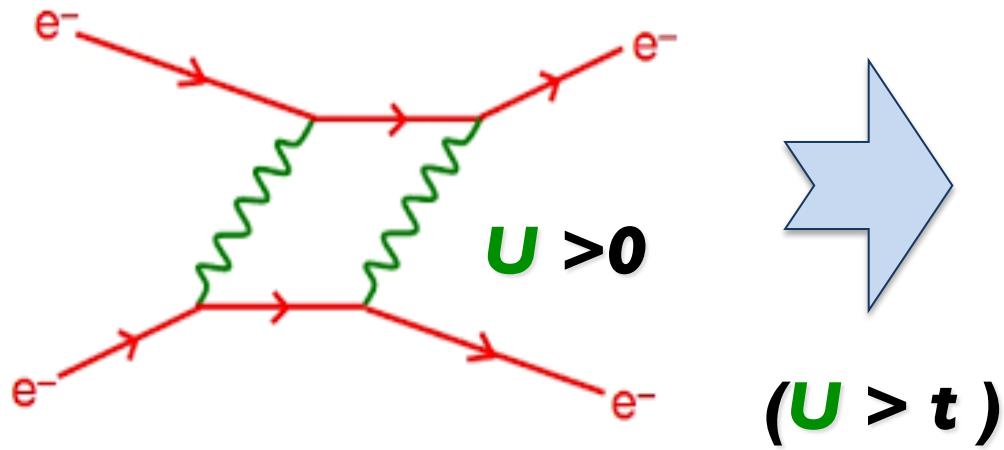
T. Schaefer, ..., & A. Toschi, PRL (2017)

*Availability:* MA (→ critical exponents for other FS//QCP in 2D)

*Prerequisites:* QT2, second quantization, (QFT in SS 2020)

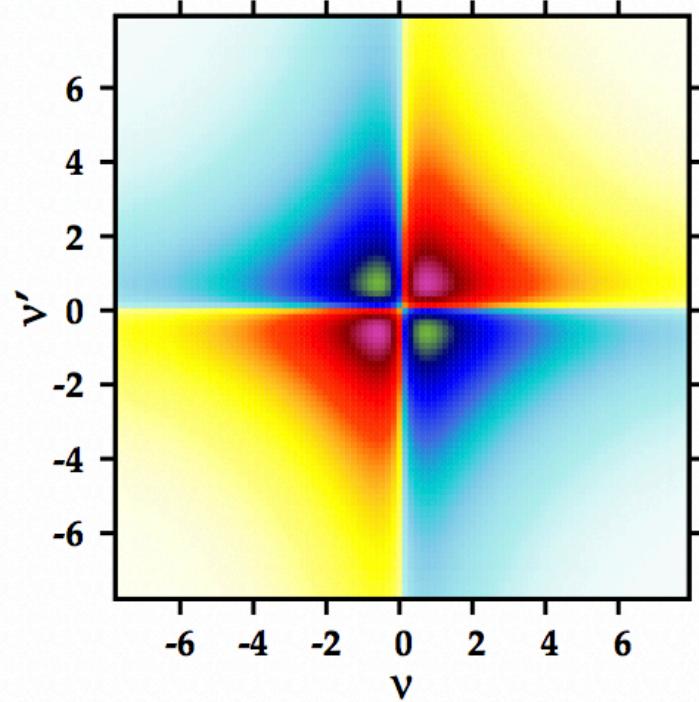
*Supervisors:* A. Toschi (collaboration: T. Schäfer [Paris/MPI Stuttgart], A. Vock)

# \*) Turning a (strong) repulsion in attraction! (PA,MA)



P. Chalupa, ..., & A. Toschi, PRB (2018)  
M. Reitner, P. Chalupa, ... A. Toschi, PRL (2020)  
P. Chalupa, .... & A. Toschi, preprint (2020)

## Effective interaction



Possible (also in combination): one **PA** ( $\rightarrow$  1st order Mott-Hubbard MIT) & one **MA** ( $\rightarrow$  effective attraction by doping Hund's/Mott insulators)

**Prerequisites:** QT2, second quantization, (evt. QFT in SS 2020)

**Supervisors:** P. Chalupa/M. Reitner & A. Toschi