



# Sandro Sorella (1960-2022)

1985-1989 PhD@SISSA – Supervisors: S. Baroni, R. Car, M. Parrinello, E.Tosatti

1990-1991 Postdoc@ETHZ – T. M. Rice group

1992-1998 Researcher @ SISSA

1998-2005 Associate Professor @ SISSA

2005-2022 Full Professor @ SISSA



## Sandro memorial by his students/collaborators

Lattice Models

→ Matteo Calandra (PhD 1999)

QMC on real systems

→ Michele Casula (PhD 2005)

Algorithms and codes

→ Kosuke Nakano (Postdoc 2018-2019)

QMC & Machine learning

→ Giuseppe Carleo (Phd 2011)

# Frustrated spin systems

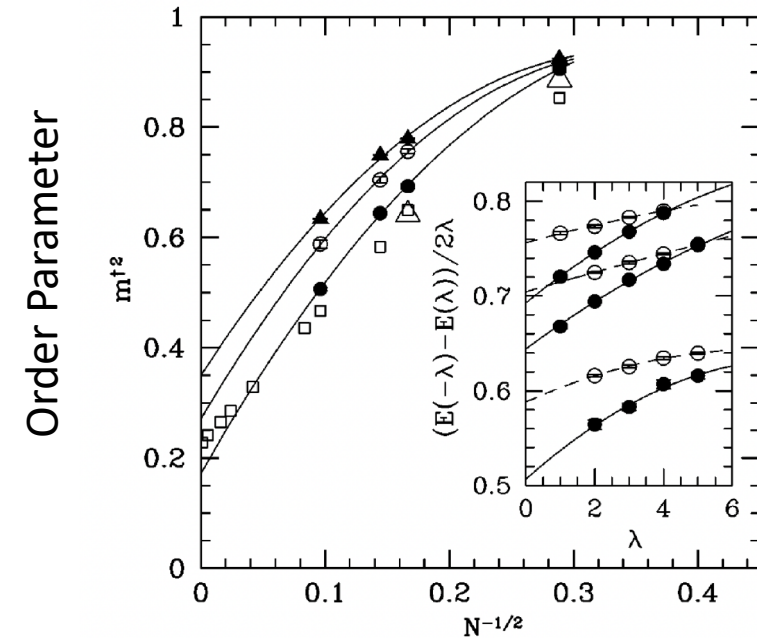
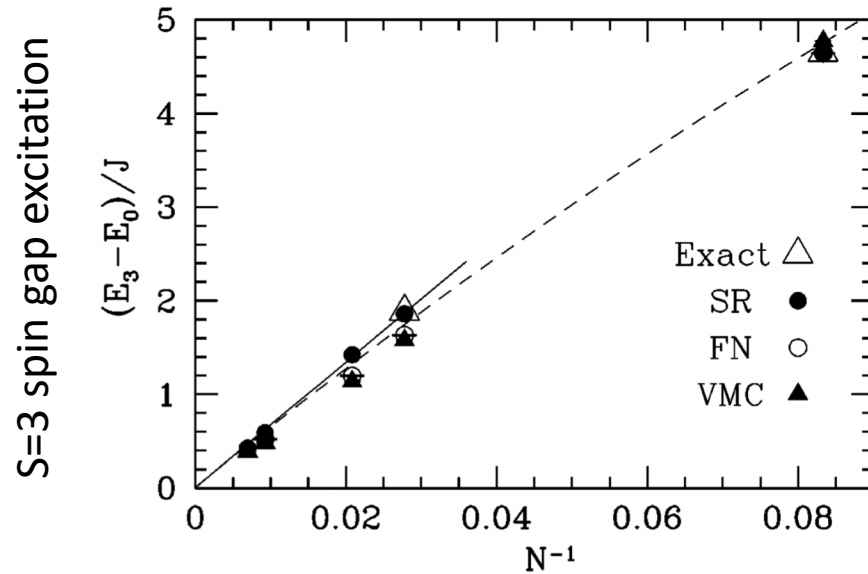
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PHYSICAL REVIEW LETTERS

10 MAY 1999

## Long-Range Néel Order in the Triangular Heisenberg Model

Luca Capriotti,<sup>1</sup> Adolfo E. Trumper,<sup>1,2</sup> and Sandro Sorella<sup>1</sup>



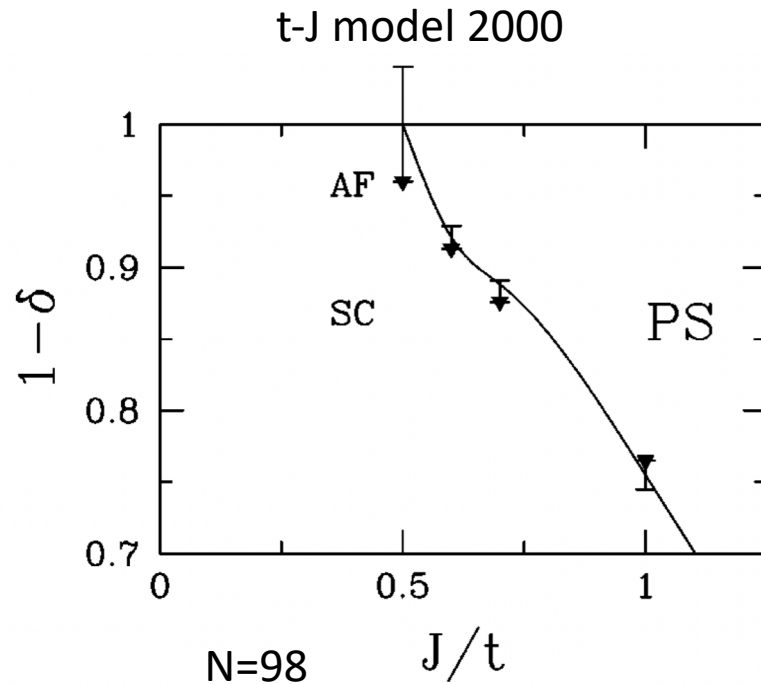
N=number of sites.

338 citations.

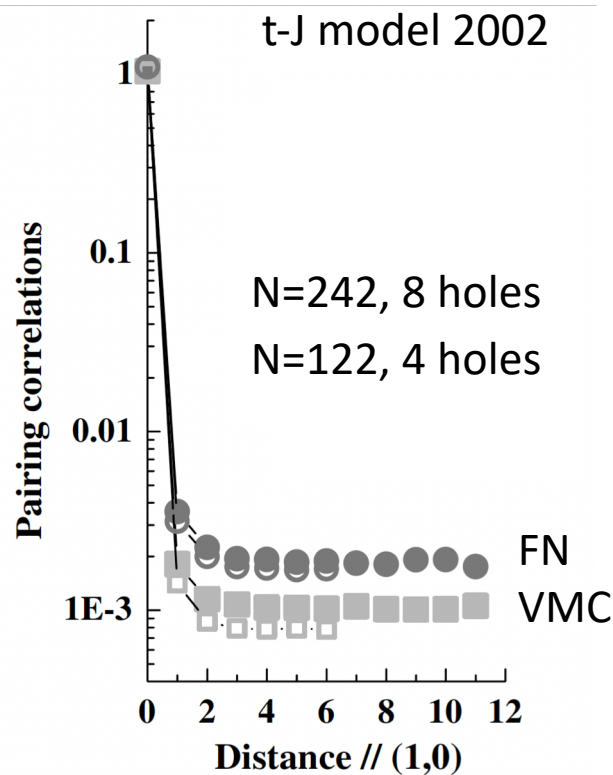
# Superconductivity in t-J/Hubbard models

« You know, I was born with a problem: Superconductivity and phase separation in Hubbard/t-J models »

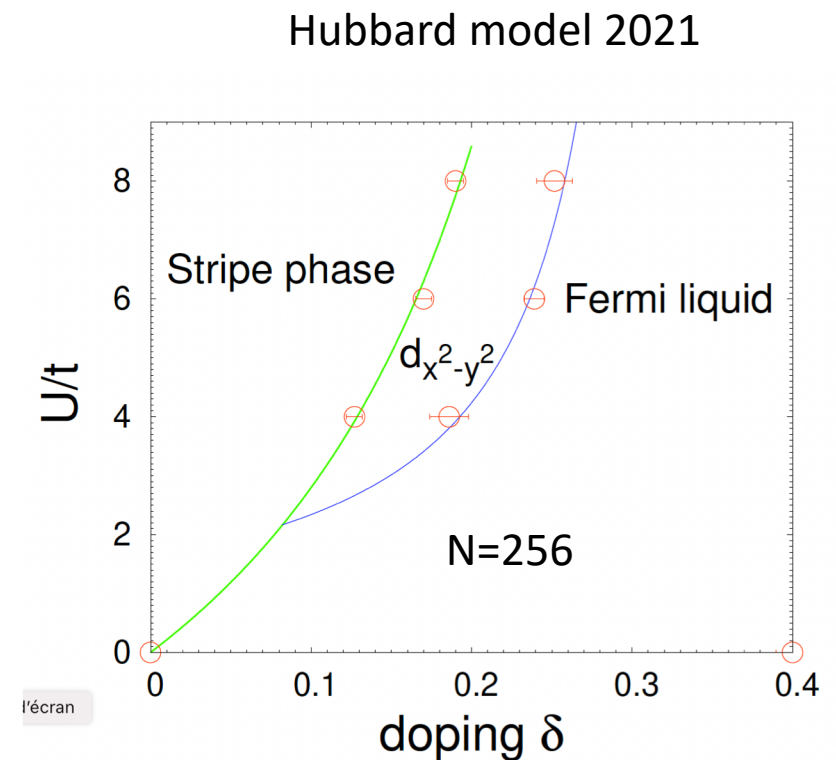
S. Sorella



M. C. & S. Sorella, PRB 61, R11894 (2000)  
M.C., F. Becca and S.Sorella, PRL 81, 5185 (1998)



S. Sorella *et al.* PRL 88, 117002 (2002)



S. Sorella, arXiv:2101.07045

A sign of the eternal quest for improving QMC accuracy by Sandro !



# Sandro's group as of October 1999

myself, now  
Professor @ UniTN

M. Capone\* now  
Professor @ SISSA

A. Parola now  
Professor @ Univ. Insubria

F. Becca, now  
Professor @ UniTS

L. Capriotti, now  
Head of Quantitative  
Strategies Credit ,NYC

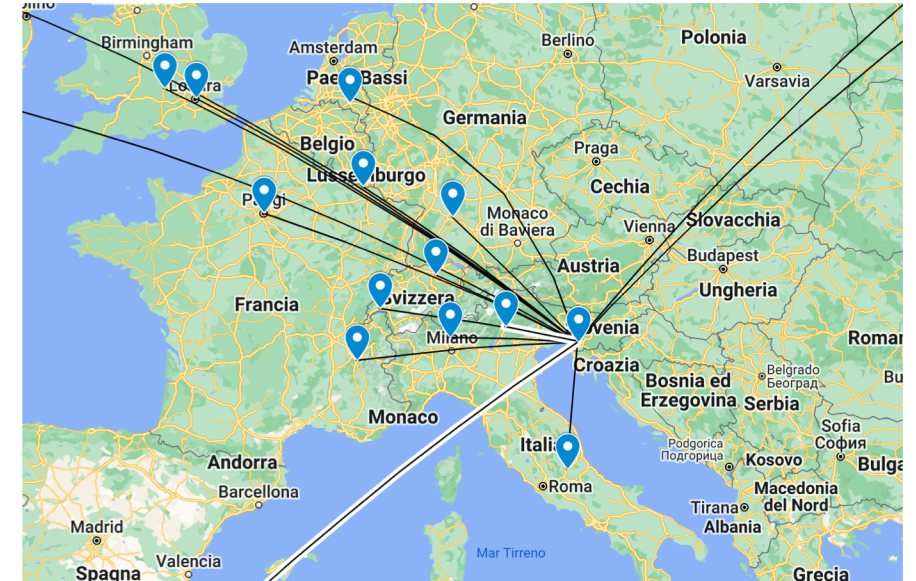
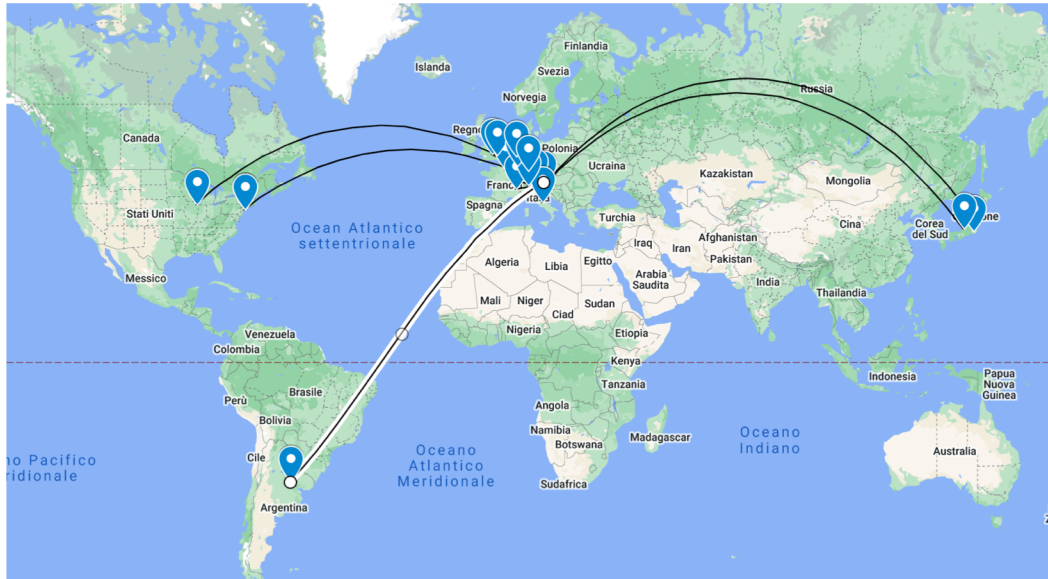


Courtesy of F. Becca

\* M. Capone not formally a student of S.S., but office mate, often present in group discussions

## Was that a lucky year ? Where are other “Super Sandro” students ?

# Sandro's legacy: 3 generations of scientists



Sandro was a mentor for at least **27** Phd's and postdocs (from 1998 up to now).

At least **17** among them are Professors, permanent researchers, or have important positions in companies.

Those who have no permanent positions are too young to have one.

He was also an inspiration for many colleagues and coworkers (too many to mention).