



Novel Superfluids in Ultracold Fermionic Mixtures

Fact Sheet

Project Information

SuperCoolMix

Grant agreement ID: 101020438

DOI

[10.3030/101020438](https://doi.org/10.3030/101020438) 

EC signature date

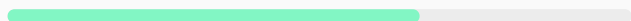
26 May 2021

Start date

1 January 2022

End date

31 December 2026



Funded under

EXCELLENT SCIENCE - European Research Council (ERC)

Total cost

€ 2 367 500,00

EU contribution

€ 2 367 500,00

Coordinated by

OESTERREICHISCHE AKADEMIE
DER WISSENSCHAFTEN



Austria

Project description

Out of balance and tipping the scales towards even more exotic quantum behaviours

Superfluidity and superconductivity are two related and intriguing properties of matter that are spurring theoretical and practical innovation in many fields. Whereas superfluidity refers to the ability of a fluid to flow without friction, superconductivity is the ability of charge to flow without resistance. As if superfluidity was not exotic enough, there are also unconventional regimes of superfluidity theoretically resulting from a mass imbalance between pairs of atoms that form in ultracold gases. The EU-funded SuperCoolMix project will push the limits of mass-imbalanced systems with a novel experimental setup that could shine new light on exotic and unconventional regimes of superfluidity.

Keywords

[Ultracold superfluids](#)

[quantum-gas mixtures](#)

[strongly interacting Fermi gases](#)

Programme(s)

[H2020-EU.1.1. - EXCELLENT SCIENCE - European Research Council \(ERC\)_](#)

MAIN PROGRAMME

Topic(s)

[ERC-2020-ADG - ERC ADVANCED GRANT](#)

Call for proposal

[ERC-2020-ADG](#)

[See other projects for this call](#)

Funding Scheme

[ERC-ADG - Advanced Grant](#)

Host institution



OESTERREICHISCHE AKADEMIE DER WISSENSCHAFTEN

Net EU contribution

€ 1 363 125,00

Total cost

€ 1 363 125,00

Address

DR. IGNAZ SEIPEL-PLATZ 2

1010 Wien

 **Austria**

Region

Ostösterreich > Wien > Wien

Activity type

Research Organisations

Links

- [Contact the organisation](#)
- [Website](#)
- [Participation in EU R&I programmes](#)
- [HORIZON collaboration network](#)

Beneficiaries (2)



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Total cost

€ 1 363 125,00



UNIVERSITAET INNSBRUCK

Austria

Net EU contribution

€ 1 004 375,00

Address

INNRAIN 52
6020 Innsbruck

Region

Westösterreich > Tirol > Innsbruck

Activity type

Higher or Secondary Education Establishments

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 1 004 375,00

Last update: 26 February 2025

Permalink: <https://cordis.europa.eu/project/id/101020438>

European Union, 2025