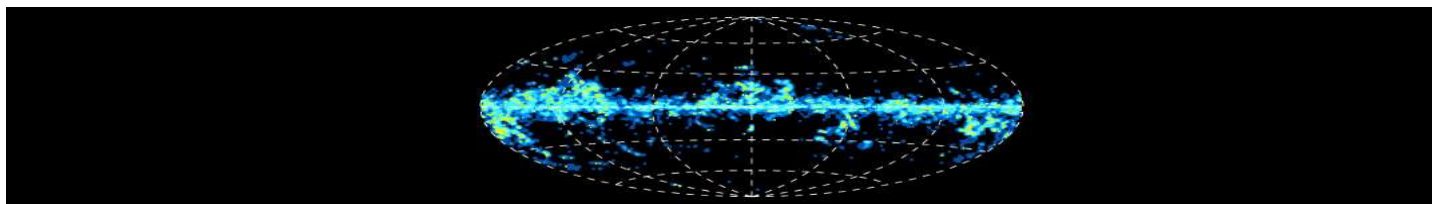


Cold Cores 2024

Cold Cores Hc



Previous Cold Cores meetings

Cold Cores - Toulouse 28.-30.5.2024



The 14th meeting of the Cold Cores project will be held in Toulouse **from Tuesday the 28th to Thursday the 30th of May 2024**. The days will consist of normal presentations and of discussion sessions on observing projects and ongoing studies.

SOC: Isabelle Ristorcelli, Mika Juvela

Practical information

The Cold Cores 2024 meeting takes place at [IRAP](#), Toulouse (9, avenue du Colonel Roche). The meeting is planned to start with coffee at 9:00 on Tuesday the 28th of May and to end at lunch time (around 13:00) on Thursday the 30th of May. The conference dinner will be organised in the evening of the 29th, in downtown Toulouse.

Accommodation options:

- [Cité Internationale](#)
- [Hotel Royal Wilson](#), 6 rue Labéda, 31000 Toulouse, Tel: (+33) 05 61 12 41 41
- [Hôtel Ours Blanc Centre](#), 14, Place Victor Hugo, 31000 Toulouse, Tel : +33 (0)5 61 21 25 97
- [Hotel Ours Blanc Place Victor Hugo](#), 25 Place Victor Hugo, 31000 Toulouse, Tel : +33 (0)5 61 23 14 55
- [Grand Hotel d'Orléans](#), 72, rue Bayard, 31000 Toulouse, Tel : (+33) 05 61 62 98 47
- [B&B Hotel Toulouse Centre Canal du Midi](#), 77 Boulevard de l'Embouchure, 31200 Toulouse, Tel: (+33) 08 92 78 81 02

Programme

Tuesday, 28th of May

09:00-09:15	Welcome coffee
09:15-09:20	Isabelle and Mika
	Opening of the meeting
	Large scale session
09:20-09:50	Douglas Marshall
	New insights on the nature of the Local Arm
09:50-10:20	Barnabé Déforêt
	3D extinction mapping of the Milky Way with the Besançon Galaxy Model in the Gaia era
10:20-10:50	Coffee Break
10:50-11:15	Thomas Lheureux
	Improvements to the Gaia distance tool for the PGCC

11:15-11:40	András Péter Joó	Sub-mm point sources in PGCCs
11:40-12:05	Nóra Varga	A study of GCCs in Heiles Cloud 2
12:05-12:30	Enikő Pichler	HI line properties and relationship to star formation in nearby dwarf galaxy DDO 43
12:30-14:30		Lunch break
14:30-15:00	Viktor Toth	Galactic and extragalactic star formation
		Lines / surveys
15:00-15:30	Job Vorster	B-FROST: Survey Description and First Results
15:30-16:00	Emma Mannfors	BFROST: cloud structure and evolution in the Lambda Orionis molecular ring
16:00-16:30		Coffee Break
16:30-17:30		Discussion

Wednesday, 29th of May

09:00-09:30	Tie Liu	Results from the ALMA-ATOMS/QUARKS survey
09:30-10:00	Olivier Berné	Results from the JWST ERS PDRs4All
10:00-10:30		Coffee Break
		Magnetic fields / Polarisation
10:30-11:00	Kate Pattle	Interstellar magnetic fields from star formation to galaxy evolution
11:00-11:30	Dana Alina	B field structure of the ring-like molecular cloud G111
11:30-12:00	Yasuo Doi	Multi-component Magnetic Field in the Sagittarius Spiral Arm (II)
12:00-12:30	Katia Ferrière	A three-dimensional reconstruction of the interstellar magnetic field toward G139
12:30-14:00		Lunch break
		Continuum / dust
14:00-14:30	Wilma Kiviaho	NIKA2 and Herschel analysis of the L1506 star forming filament
14:30-15:00	Karine Demyk	NIKA2 and Herschel analysis of the JWST targets
15:00-15:30	Devika Tharakkal	Continuous dust emissions in interstellar clouds with polarized radiative transfer program
15:30-16:00		Coffee Break
16:00-16:30	Jonathan Oers	Statistical analysis of the relative orientation between filaments and magnetic fields in the GCC fields
16:30-17:00	Edith Falgarone	Why sub-mm dust continuum emission is not a faithful tracer of the nature of faint filaments in molecular clouds
17:00-18:00		Discussion
19:30		Workshop dinner

Thursday, 30th of May

09:00-09:30	Mika Juvela	Modelling dust emission in Taurus and Orion cloud filaments
09:30-10:00	Dana Makarova	Detection of hub-filament systems: insights from numerical simulation
10:00-10:30	Veli-Matti Pelkonen	Origin and Evolution of Angular Momentum of Class II Disks
10:30-11:00		Coffee Break
11:00-12:30		Discussion
12:30		End of the meeting

List of participants and preliminary talk titles

- **Alina, Dana** (University of Astana): *B field structure of the ring-like molecular cloud G111*

- **Berné, Olivier** (IRAP, Toulouse): *Results from the JWST ERS PDRs4All*
- **Déforêt, Barnabé** (Besancon observatory): *3D extinction mapping of the Milky Way with the Besancon Galaxy Model in the Gaia era*
- **Demyk, Karine** (IRAP, Toulouse): *NIKA2 and Herschel analysis of the JWST targets*
- **Doi, Yasuo** (University of Tokyo): *Multi-component Magnetic Field in the Sagittarius Spiral Arm (II)*
- **Falgarone, Edith** (ENS, Paris): *Why sub-mm dust continuum emission is not a faithful tracer of the nature of faint filaments in molecular clouds*
- **Ferrière, Katia** (IRAP, Toulouse): *A three-dimensional reconstruction of the interstellar magnetic field toward G139*
- **Joó, András Péter** (ELTE, Budapest): *Sub-mm point sources in PGCCs*
- **Juvela, Mika** (University of Helsinki): *Modelling dust emission in Taurus and Orion cloud filaments*
- **Kiviahho, Wilma** (IRAP, Toulouse): *NIKA2 and Herschel analysis of the L1506 star forming filament*
- **Liu, Tie** (Shanghai Observatory; remote participant): *Results from the ALMA-ATOMS/QUARKS survey*
- **Lheureux, Thomas** (IRAP, Toulouse): *Improvements to the Gaia distance tool for the PGCC*
- **Mai, Xiaofeng** (Shanghai Observatory; remote participant)
- **Makarova, Dana** (University of Astana): *Detection of hub-filament systems: insights from numerical simulations*
- **Marshall, Douglas** (IRAP, Toulouse): *New insights on the nature of the Local Arm*
- **Mannfors, Emma** (University of Helsinki): *BFROST: cloud structure and evolution in the Lambda Orionis molecular ring*
- **Montier, Ludovic** (IRAP, Toulouse)
- **Montillaud, Julien** (Besancon observatory; remote participant)
- **Oers, Jonathan** (IRAP, Toulouse): *Statistical analysis of the relative orientation between filaments and magnetic fields in the GCC fields*
- **Paradis, Deborah** (IRAP, Toulouse)
- **Pattle, Kate** (UCLAN): *Magnetic fields and star formation (TBC)*
- **Pelkonen, Veli-Matti** (IAPS-INAF; remote participant): *Origin and Evolution of Angular Momentum of Class II Disks*
- **Pichler, Enikő** (ELTE, Budapest; remote participant): *H I line properties and relationship to star formation in nearby dwarf galaxy DDO 43*
- **Ristorcelli, Isabelle** (IRAP, Toulouse)
- **Tharakkal, Devika** (University of Helsinki): *Continuous dust emissions in interstellar clouds with polarized radiative transfer program*
- **Toth, Viktor** (ELTE, Budapest): *Galactic and extragalactic star formation*
- **Varga, Nóra** (ELTE, Budapest): *A study of GCCs in Heiles Cloud 2*
- **Vastel, Charlotte** (IRAP, Toulouse)
- **Vorster, Job** (University of Helsinki): *B-FROST: Survey Description and First Results*
- **Ysard, Nathalie** (IRAP, Toulouse)