

CNRS Helmholtz Dark Matter Lab (DMLab)



Thomas Schoerner (DESY) and Dirk Zerwas (IJCLab and DMLab)

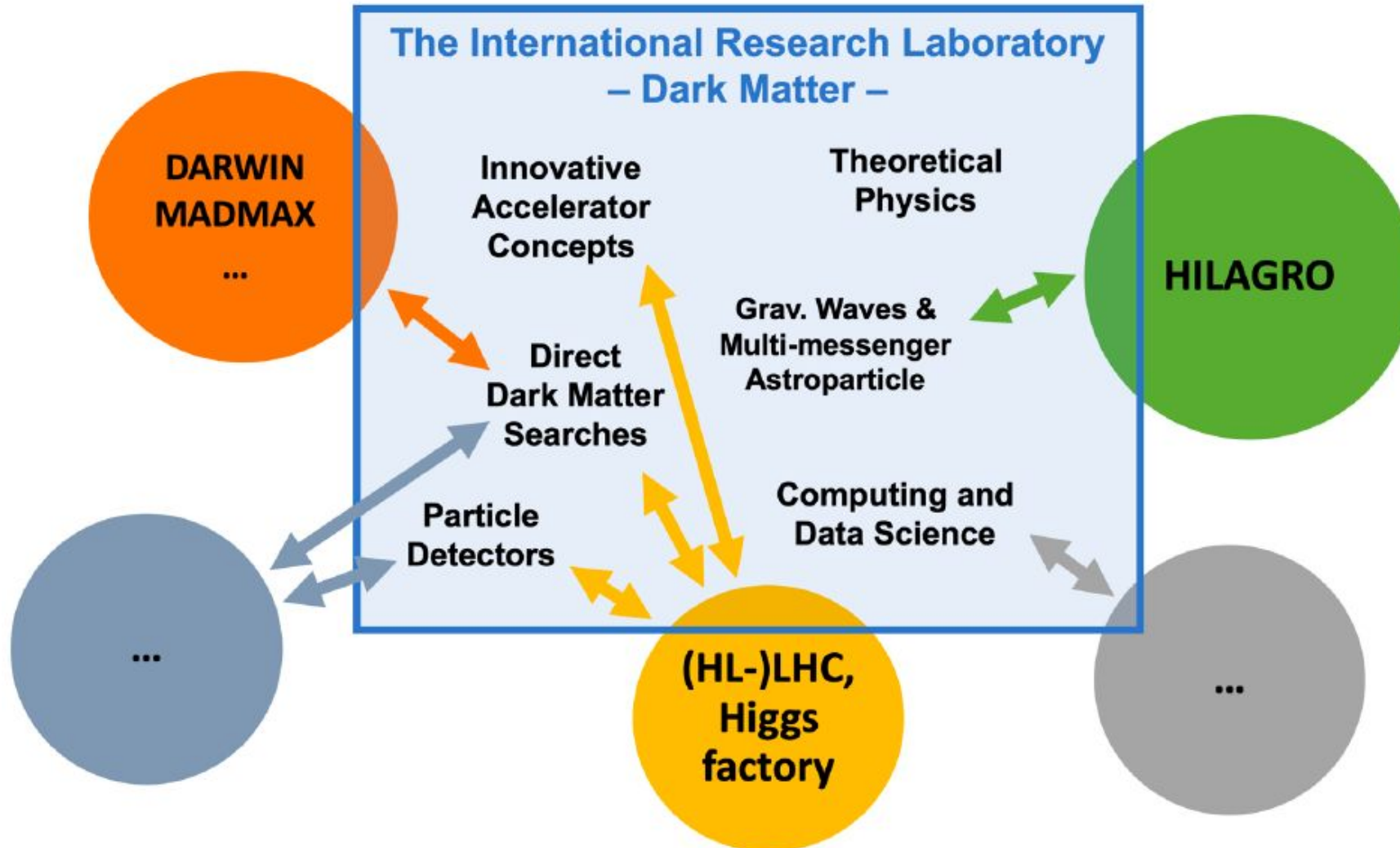
3rd Annual Meeting of DMLab
November 16-17, 2023



Scientific Topics of DMLab

Organised around the central theme dark matter

Historical salespitch



IRL tasks:

- develop new ideas
- across topic boundaries
- glued by dark matter

Formally

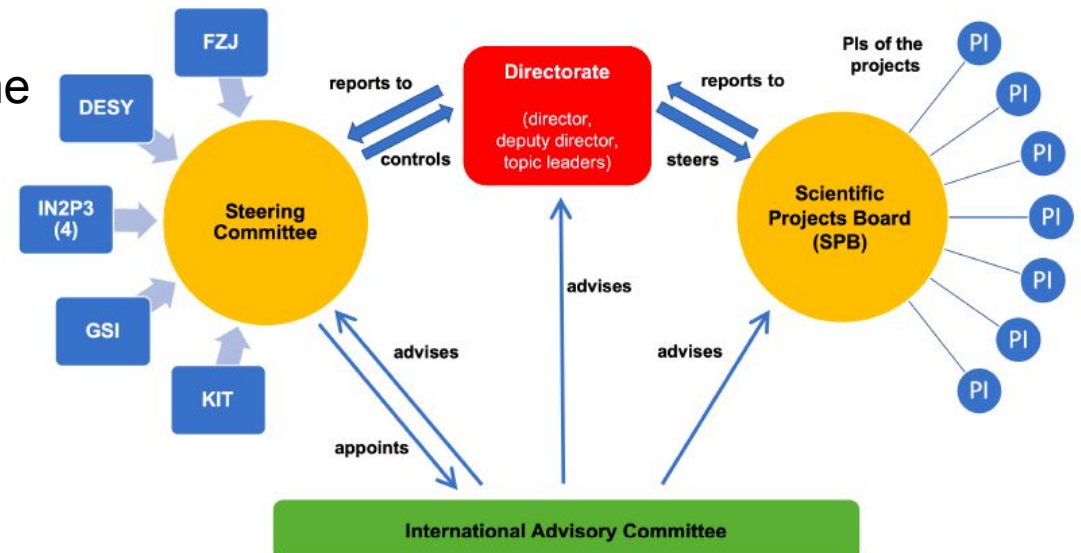
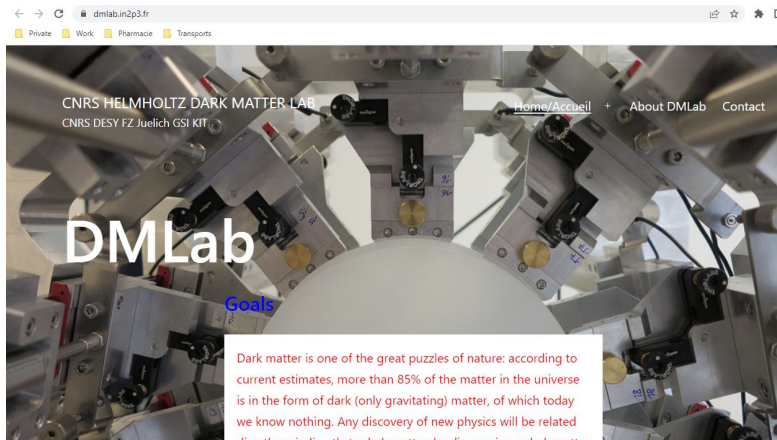
- **long term visits to DESY, KIT and GSI**
(sabbaticals/expatriation=change of lab, 1y minimum)
- **working visits** (typically 1-2 weeks)
- workshops broad and narrow
- common work
- try for common funds

Institutions

Governance

- Directorate (Director and CoDirector)
 - Dirk Zerwas (CNRS) and Thomas Schoerner (DESY)
- Steering Committee
- Scientific Projects Board
- International Advisory Committee
- Website
- Mailing list dmlab-general:
 - contact Thomas or Dirk
 - or mail to: sympa@desy.de
 - subject: subscribe dmlab-general Firstname Name

Name	Institution	Function
Reynald Pain / Berrie Giebels	IN2P3	Director
Patrice Verdier (co-chair)	IN2P3	
Vincent Poireau	IN2P3	
Laurent Vacavant	IN2P3	
Beate Heinemann	DESY	Director of particle physics
Hans Ströher (co-chair)	FZ Jülich	Director of IKP2
Yvonne Leifels	GSI	Deputy research director
Marc Weber	KIT	Head of division V



The DMLab SPB

Projects

Projects:

- **living system:**
starting/merging/ending

2023

- workshop plasma
- working visits to:
 - KIT
 - GSI
 - DESY
- Workshop 2023@KIT
- Common funds:
 - ANR-DFG projects submitted
 - CALO5D succeeded (congratulations to PIs Roman and Lucia and the teams from IJCLab, LLR (Vincent Boudry), Mainz, DESY (Katja Krueger), KIT (Frank Simon))

Topic	Project	PI France	PI Germany
Direct Searches	Darwin	Julien Masbou (Subatech)	Klaus Eitel (KIT)
	MadMax	Fabrice Hubaut (CPPM)	Axel Lindner (DESY)
GW and MM Astroparticles			
Accelerators	Plasma Wakefield	Nicolas Delerue (IJCLab)	Jens Osterhoff
	Plasma Hadron	Medhi Tarisien (CENBG)	Vincent Bagnoud (GSI)
Computing and ML	Precision and ML	David Rousseau (IJCLab)	Gudrun Heinrich (KIT)
	High Precision for Dark Matter	Fawzi Boudjema (LAPTH)	Peter Marquard (DESY)
Particle Detectors	Tracking Detectors	Marc Winter (IJCLab)	Ingrid-Maria Gregor (DESY)
	Calorimeters	Roman Poeschl (IJCLab)	Katja Krueger (DESY)
	Germanium Detectors	Gilbert Duchene (IPHC)	Juergen Gerl (GSI)
Theory	Dark Matter, Gravity, Cosmology	Adam Falkowski (IJCLab)	Geraldine Servant (DESY)
	Dark Photons	Juergen Brunner (CPPM)	Peter Marquard (DESY)
	DM Gravity Cosmology	Daniele Steer (APC)	Thomas Konstandin (DESY)
	SuSpect takes a SUSY-Hit	Jean-Loic Kneur (L2C)	Margarete Muehleitner (KIT)
	Probing Strongly Interacting BSM	Giacomo Cacciapaglia (IP2I)	Christophe Grojean (DESY)
	Strangeness Nuclear Matter	Joerg Aichelin (Subatech)	Elena Bratkovskaya (GSI)

Formal Information

DMLab creation

- created formally on Jan 1, 2023 (dictionary need: French/German lab/institute, IN2P3(institut)/faculty or department)
- MoU last signature May 17, 2023
- French budget managed by CNRS-Delegation Paris-Normandie (DR16) Lawrence Saint-Eloy

Com:

- Dec 11: Visit of Berlin-based French-German journalist of DMLab/DESY with mixture of visits and discussion for Sciences et Avenir

2024:

- DFG-ANR:
 - projects to be submitted by Jan 10, 2024 (D) and Jan 11, 2024 (F)
 - let Thomas and Dirk know: we will provide a support statement that the project will be followed up in DMLab
- French budget request:
 - discussed with PIs before summer
 - decision expected in January (depends on IN2P3 directorate)

DMLab@KIT:

- KIT instrumental in getting DMLab going: Johannes Bluemer, Andreas Haungs, Klaus Eitel, Manuella Werp
- Looking forward to the discussions :)