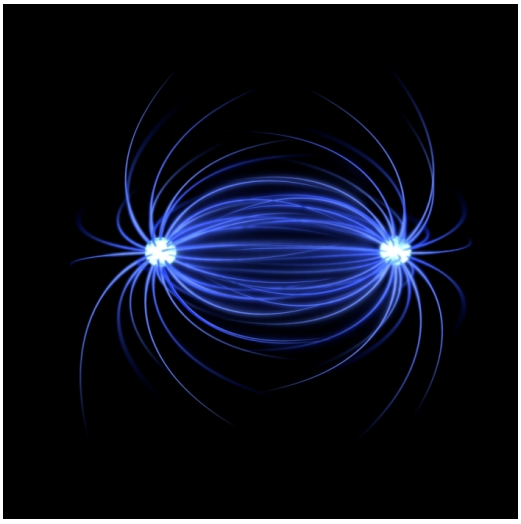
New Developments in Non-linear Transport and Magnetism (NLTM)



Mai. 26 - Mai. 29 2026

Kod. Z53-26

Mod.:
Aurrez aurrekoa

Edizioa
2026

Jarduera mota
Workshop

Data
Mai. 26 - Mai. 29 2026

Kokalekua
Materialen Fisika Zentroa (CSIC-UPV/EHU)

Hizkuntzak
Ingelesa

Balio akademikoa
40 ordu

Webgunea
https://nltm.dipc.org/

Antolakuntza Batzordea

Azalpena

Non-linear electron transport phenomena in solids, which occur when inversion symmetry is absent, have been widely studied in quantum materials both as fundamental properties associated to wavefunction Berry phases and for device applications in current rectification and frequency doubling. While the breaking of inversion symmetry is usually due to the crystal structure itself, in recent years it has been appreciated that certain types of magnetic order also break inversion symmetry and give rise to new non-linear effects which are magnetically switchable.

In this workshop, leading experts in non-linear transport will be able to share the latest developments in this field. These will include transport effects like DC non-linear longitudinal and Hall effects, as well as optical effects like shift and injection photocurrents and second harmonic generation. The workshop will cover different experimental techniques and a wide range of magnetic, non-centrosymmetric systems, and will have a strong focus on experiment-theory crosstalk and the connection with quantum geometric and topological aspects of such effects.

ORGANIZING COMMITTEE:

- Fernando de Juan Sanz (DIPC)
- Adolfo González Grushin (DIPC)

Helburuak

We aim to foster new collaborations by creating a forum for discussion of emerging materials, mechanisms, and device-relevant non-linear phenomena.

We also aim to highlight the latest research in the field, bringing novel experiments from different perspectives under a common thread.

Finally, we hope to identify open challenges and future research directions in magnetically switchable non-linear effects and their potential technological applications, and to strengthen the conceptual framework linking symmetry breaking, Berry-phase physics, and non-linear responses in condensed matter systems.

Ikastaroaren laguntzaile espezifikoak

Donostia International Physics Center

RED LEONARDO
FUNDACIÓN BBVA

Zuzendaritza

Fernando de Juan Sanz

Donostia International Physics Center

Matrikula prezioak

REGISTRATION FEES	2026-05-17 ARTE
Fee Waiver	0 EUR
Regular Attendant	200,00 EUR

Kokalekua

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Gipuzkoa