

SCIENCES, TECHNOLOGIES AND HEALTH

Turbulences : Méthodes et Applications 2nd year

Master in Physics



Target level
Baccalaureate
+5



ECTS
60 credits



Duration
1 year



Component
UFR PhITEM
(physique,
ingénierie, terre,
environnement,
mécanique)



Language(s) of
instruction
French, English

Presentation

To view the presentation of the Turbulences : Méthodes et Applications 2nd year program in French click on the following link: [Parcours Turbulences, Méthodes et Applications 2e année](#)

International education : Internationally-oriented programmes

International dimension

Study abroad as an exchange student

As part of this track, you have the opportunity to study for a semester or a year at a UGA partner University abroad.

The International Relations Officers of your faculty will be able to provide you with more information.

More information on : <https://international.univ-grenoble-alpes.fr/partir-a-l-international/partir-etudier-a-l-etranger-dans-le-cadre-d-un-programme-d-echanges>

Admission

Access conditions

Education requirements :

- For the second year : students who have completed the first year of a compatible master program or equivalent level
- Admission criteria : See the section on applications and registration

Public continuing education : You are in charge of continuing education :

- if you resume your studies after 2 years of interruption of studies
 - or if you followed a formation under the regime formation continues one of the 2 preceding years
 - or if you are an employee, job seeker, self-employed
- If you do not have the diploma required to integrate the training, [you can undertake a validation of personal and professional achievements \(VAPP\)](#)

Candidature / Application

Would you like to apply and register ? Be aware that the procedure differs depending on the diploma, the degree

obtained, or the place of residence for foreign students. Let us guide you simply by following this [link](#)

- Applications for the OptiCo master 2nd year will be examined by a jury made up of teachers and professionals

Fees

Tuition fees 2023-2024 : 243 €+100€ CVEC

Useful info

Contacts

Program director

Christophe Brun

✉ christophe.brun@univ-grenoble-alpes.fr

Program administration

Registrar's Office for the Master in Physics

✉ phitem-master-physique@univ-grenoble-alpes.fr

Program administration

Application

✉ phitem-candidature-etudiant@univ-grenoble-alpes.fr

Partner schools

Cette formation peut être suivie dans le cadre d'un double-diplôme en partenariat avec Universität des Saarlandes (Allemagne).
Professeur en charge du Double Diplôme : M. Ingo SCHIENBEIN

Course location(s) - City

📍 Grenoble

Campus

🏠 Grenoble - Scientific Polygon

Know more

Master website

🔗 <https://master-physique.univ-grenoble-alpes.fr/>

Program

Master 2nd year

Semestre 9

	Nature	CM	TD	TP	Crédits
UE Physique theorique de la turbulence	Teaching Unit (UE)				3 credits
UE Ecoulements diphasiques turbulents	Teaching Unit (UE)				3 credits
UE Effet dynamo et rotation en turbulence	Teaching Unit (UE)	9h	12h		3 credits
UE Bilinguisme Anglais/Français compréhension	Teaching Unit (UE)			9h	3 credits
UE Méthodes expérimentales avancées	Teaching Unit (UE)	3h	12h	9h	3 credits
UE Méthodes numériques avancées	Teaching Unit (UE)				3 credits
UE Dynamique des plasmas astrophysiques	Teaching Unit (UE)				3 credits
UE Turbulence compressible	Teaching Unit (UE)				3 credits
UE Turbulence d'ondes	Teaching Unit (UE)				3 credits
UE Turbulence en couche limite atmosphérique	Teaching Unit (UE)				3 credits
UE Advanced Machine Learning in Earth Sciences	Teaching Unit (UE)			15h	3 credits
UE Dynamique des fluides géophysiques	Teaching Unit (UE)				6 credits
UE Controle et turbulence de paroi	Teaching Unit (UE)				3 credits
UE GPU Computing	Teaching Unit (UE)	18h		18h	6 credits
UE Data assimilation in geosciences	Teaching Unit (UE)				3 credits

UE Advanced Simulation Tools for Mechanics and the Environment	Teaching Unit (UE)		4h	6 credits
UE Transfert de chaleur	Teaching Unit (UE)	40h	40h	6 credits

Semestre 10

	Nature	CM	TD	TP	Crédits
UE Internship - 5 months	Teaching Unit (UE)				30 credits