

# Interdisciplinarity conference on many-body theory

Third general congress of the NBODY research network

Nancy — June 16 to 18, 2025

*N-body problem in quantum chemistry, condensed matter  
physics, nuclear physics, and mathematics*



---

# INTERDISCIPLINARITY CONFERENCE ON MANY-BODY THEORY

*Nancy — June 16 to 18, 2025*

Third general congress of the NBODY research network

---

## I. Presentation of the NBODY research network, and aim of this congress

The NBODY research network was created in January 2019. It aims at bringing together the community working on the  $N$ -body problem from the viewpoint of quantum chemistry, condensed-matter physics, nuclear physics, and mathematics. The idea is to foster the development of new computational methods in quantum mechanics, the transfer of these methods from one discipline to another, and their efficient computer implementations. To reach this goal, the research network organizes interdisciplinary conferences and workshops. It is also particularly involved in training students and researchers *via* the organization of several interdisciplinary international schools. The NBODY research network has a web site that can be accessed by clicking [\[here\]](#).

As for the first two general NBODY congresses, the aim of this event is to reinforce the already existing collaborations, and to support the initiation of new ones. Another goal is to favor the integration of PhD students, postdocs, and young researchers in the community. Finally, we would like to facilitate the dialogue between the different topics by including presentations with a pedagogical perspective.

## II. General information and venue

Campus: *Faculté des Sciences et Technologies, Vandoeuvre-lès-Nancy*

Building: *Victor Grignard*

Lecture room: *Amphi VG8*

### II.1 Reaching Nancy

The town of Nancy can be reached through two railway stations of the French national railway company — the SNCF (check their [\[web site\]](#) for ticket reservation) — : the “Nancy gare SNCF” located at the city-center; or the “Lorraine TGV” station with a connection bus line toward the city center of Nancy. The “Nancy Gare SNCF” in the city center is actually located at 1h30 by train from Paris and Luxembourg.

The three closest airports are the [\[Luxembourg airport\]](#), the [\[Bâle-Mulhouse airport\]](#), and the [\[Lorraine airport\]](#). The Lorraine airport is located between Nancy and Metz.

## II.2 Reaching the campus

The lectures will take place on the “campus de la faculté des sciences et technologies de Nancy”. The campus can be reached from the city center using one of the two following local public transport lines:

- (i) the Tempo 3 (**T3**) line from the city center (for example, from the “Tour Thiers Gare stop”) in the direction of Villers Campus Science. The building is next to the terminus stop;
- (ii) line **A** from the city center (for example, from the “Joffre Gare” stop) in the direction of Vandoeuvre CHU Brabois. The campus is next to the “Velodrome” and the “Callot” stops.

You can consult the map of the public transport network of Nancy (STAN) by clicking [\[here\]](#). The schedules files for the T3 and A lines can be consulted by clicking [\[here\]](#). For each of these lines, the period of interest for us is the Green one (*Période verte — semaine scolaire, du lundi au vendredi*). For your information, the two target schedule files [extracted on February 24, 2025] are also given at the end of this document.

## II.3 Reaching the lecture room

The lectures will take place in the Victor Grignard building, in the VG8 amphitheater (“Amphi VG8”). A map of the campus and a map of the building are given at the end of the present document.

## II.4 Before and during the lectures

We leave it to the participants to arrange their own accommodation. In case of emergency, please reach this phone number: 0033 625 899 778. Do not hesitate to use the local-contact e-mails of [\[Séverine Bonenberger\]](#), [\[Thibaud Etienne\]](#) or [\[Jérémy Morere\]](#) in case you have any question.

# III. Registration and abstract submission

## III.1 Registration

For organizational purposes, registration to the school is free of charge but mandatory. Please send an e-mail to [\[NBODY2025@proton.me\]](mailto:NBODY2025@proton.me). In your registration e-mail, please provide us with the following:

1. FIRST NAME
2. LAST NAME
3. AFFILIATION

Registration is open until **June 2, 2025** in the limit of a hundred participants.

## III.2 Abstract submission

Please do not hesitate to send us your request for a contributed talk or a poster presentation. You can download the template you need for your request (contributed talk or poster presentation), either in the Word or LaTeX format, at the following link: [\[LINK\]](#).

Abstract submission is open until **May 15, 2025**. To submit your abstract, please send it to the following e-mail address: [\[NBODY2025@proton.me\]](mailto:NBODY2025@proton.me). The scientific committee of the congress will then process your request and you will receive an answer by **June 2, 2025**.

## IV. Provisional schedule

In the following table, “IT–XX” means “Invited talk XX” and “CT–XX” means “Contributed talk XX” with the number (XX) corresponding to the number of the abstract that you will find in the final version of this booklet; “TBA” means “To be announced”.

<i>Day 1</i>	<i>June 16, 2025</i>		<i>Amphi VG8</i>
12h00		<i>Organizing committee</i>	Welcoming cocktail
13h30		Matteo Gatti	IT–01
14h00		TBA	CT–01
14h30		Christian Chilling	IT–02
15h00		TBA	CT–02
15h30			Coffee break
16h00		Ewa Pastorcza	IT–03
16h30		TBA	CT–03
17h00		Fabris Kossoski	IT–04
17h30		TBA	CT–04
18h00			Poster session 1
19h00			Dinner
<i>Day 2</i>	<i>June 17, 2025</i>		<i>Amphi VG8</i>
8h30		Mikael Frosini	IT–05
9h00		TBA	CT–05
9h30		Guillaume Hupin	IT–06
10h00			Coffee break
10h30		Louis Garrigue	IT–07
11h00		TBA	CT–06
11h30		Geneviève Dusson	IT–08
12h00		TBA	CT–07
12h30			Lunch
14h00		Lea M. Ibele	IT–09
14h30		TBA	CT–08
15h00		Hélène Bolvin	IT–10
15h30		TBA	CT–09
16h00			Coffee break
16h30		Benjamin Lenz	IT–11
17h00		TBA	CT–10
17h30		Carlos Mejutos-Zaera	IT–12
18h00			Poster session 2
19h00			Dinner
<i>Day 3</i>	<i>June 18, 2025</i>		<i>Amphi VG8</i>
8h30		Michael Urban	IT–13
9h00		TBA	CT–11
9h30		Elias Khan	IT–14
10h00			Coffee break
10h30		Pauline Colinet	IT–15
11h00		TBA	CT–12
11h30		Saad Yalouz	IT–16
12h00		TBA	CT–13
12h30			Lunch and departures

## **V. Organization of the congress and financial support**

### **V. Organizing committee**

S  verine BONENBERGER  
Thibaud ETIENNE  
J  r  my MORERE  
Julien TOULOUSE

### **V.2 Scientific committee**

Lorenzo Ugo ANCARANI  
Eric CANC  S  
Thomas DUGUET  
Emmanuel FROMAGER  
Emmanuel GINER  
Pascal GRANGER  
Maria HELLGREN  
Pierre-Fran  ois LOOS  
Paola NAVA  
Pina ROMANIELLO  
Andr   SEVERO PEREIRA GOMES  
Julien TOULOUSE  
Morgane VACHER

### **V.3 Financial support**

We would like to warmly thank the following departments for their generous financial support:

- The faculty of science and technology for lending us the amphitheater
- The CPM scientific pole of the university of Lorraine
- The C2MP PhD school of the university of Lorraine
- The laboratory of theoretical physics and chemistry (CNRS and university of Lorraine)
- The CNRS, through the NBODY research network
- The European Research Council (ERC) through the “European Union’s Horizon Europe” research and innovation program (Grant agreement No. 101163469)

T3

PÉRIODE VERTE  
SEMAINE SCOLAIRE

DU LUNDI AU VENDREDI

NOUVEAUX HORAIRES  
À PARTIR DU 20 DÉCEMBRE

## DIRECTION VILLERS CAMPUS SCIENCES

Seichamps Haie Cerlin	05:00	05:30	06:00	06:11	06:21	06:31	06:41	06:49
Porte Verte	05:09	05:39	06:09	06:20	06:30	06:40	06:51	06:59
Essey Mouzimpré	05:14	05:44	06:14	06:25	06:35	06:45	06:57	07:05
Place des Vosges	05:27	05:57	06:27	06:38	06:48	06:58	07:12	07:20
Tour Thiers Gare	05:36	06:06	06:36	06:47	06:57	07:07	07:23	07:31
Provinces	05:44	06:14	06:45	06:56	07:06	07:17	07:38	07:46
Villers Mairie	05:49	06:19	06:50	07:01	07:11	07:22	07:45	07:53
Villers Campus Sciences	05:53	06:23	06:55	07:06	07:16	07:27	07:51	07:59

Seichamps Haie Cerlin	06:56	07:03						
Porte Verte	07:06	07:13						
Essey Mouzimpré	07:12	07:19						
Place des Vosges	07:27	07:34						
Tour Thiers Gare	07:38	07:45						
Provinces	07:53	08:00						
Villers Mairie	08:00	08:07						
Villers Campus Sciences	08:06	08:13						

Seichamps Haie Cerlin	21:00	21:20	21:40	22:00	22:30	23:00	23:30	23:59
Porte Verte	21:08	21:28	21:48	22:08	22:38	23:07	23:37	00:06
Essey Mouzimpré	21:13	21:33	21:53	22:13	22:43	23:12	23:42	00:11
Place des Vosges	21:25	21:45	22:05	22:25	22:55	23:24	23:54	00:23
Tour Thiers Gare	21:35	21:55	22:15	22:35	23:05	23:34	00:04	00:33
Provinces	21:45	22:05	22:25	22:45	23:15	23:44	00:14	00:43
Villers Mairie	21:50	22:10	22:30	22:50	23:20	23:49	00:19	00:48
Villers Campus Sciences	21:54	22:14	22:34	22:54	23:24	23:53	00:23	00:52

## DIRECTION SEICHAMPS HAIE CERLIN

Villers Campus Sciences	05:00	05:30	06:00	06:11	06:21	06:31	06:41	06:49
Villers Mairie	05:05	05:35	06:05	06:16	06:26	06:36	06:46	06:54
Provinces	05:09	05:39	06:09	06:20	06:30	06:40	06:50	06:58
Saint-Léon	05:21	05:51	06:21	06:32	06:42	06:52	07:03	07:11
Place des Vosges	05:29	05:59	06:30	06:41	06:51	07:02	07:13	07:21
Mouzimpré	05:39	06:09	06:40	06:51	07:01	07:13	07:24	07:32
Porte Verte	05:45	06:15	06:47	06:58	07:08	07:20	07:31	07:39
Seichamps Haie Cerlin	05:54	06:24	06:56	07:07	07:17	07:29	07:41	07:49

Villers Campus Sciences	06:56	07:03						
Villers Mairie	07:01	07:08						
Provinces	07:05	07:12						
Saint-Léon	07:18	07:25						
Place des Vosges	07:28	07:36						
Mouzimpré	07:40	07:50						
Porte Verte	07:48	07:58						
Seichamps Haie Cerlin	08:00	08:10						

Villers Campus Sciences	21:00	21:20	21:40	22:00	22:30	23:00	23:30	00:13
Villers Mairie	21:05	21:25	21:45	22:05	22:35	23:05	23:35	00:18
Provinces	21:08	21:28	21:48	22:08	22:38	23:08	23:38	00:21
Saint-Léon	21:20	21:40	22:00	22:20	22:50	23:20	23:50	00:33
Place des Vosges	21:30	21:50	22:10	22:30	23:00	23:30	00:00	00:43
Mouzimpré	21:40	22:00	22:20	22:40	23:10	23:40	00:10	00:53
Porte Verte	21:45	22:05	22:25	22:45	23:15	23:45	00:15	00:58
Seichamps Haie Cerlin	21:54	22:14	22:34	22:54	23:24	23:54	00:24	01:07

CONSULTEZ  
LES INFOS  
TRAFFIC  
EN TEMPS RÉEL

@RESEAUSTAN

APPLI STAN  
RUBRIQUE INFO TRAFIC

CONTACTS

ESPACE INFO MOBILITÉS  
2, PLACE DE LA RÉPUBLIQUE  
54000 NANCY

03 83 30 08 08

WWW.RESEAU-STAN.COM

APPLI IPHONE ET ANDROID



A

PÉRIODE VERTE  
SEMAINE SCOLAIRE

DU LUNDI AU VENDREDI

HORAIRES EN SERVICE  
À PARTIR DU 26 AOÛT 2024



PENDANT LES TRAVAUX

## DIRECTION WANDEUVERE CHU BRABOIS

Essey Mouzimpré	04:00			
Saint-Max Mairie	04:10			
Division de Fer	04:16			
Place Charles III - Point Central	04:21	UN DÉPART TOUTES LES 10 MINUTES DE 4H À 6H30	UN DÉPART TOUTES LES 7 MINUTES DE 6H30 À 19H	UN DÉPART TOUTES LES 10 MINUTES DE 19H À 21H
Joffre Gare	04:27			
Parc de Saurupt	04:34			
Vélodrome	04:40			
Wandoeuvre CHU Brabois	04:52			

Essey Mouzimpré	21:00	21:15	21:30	21:45	22:00	22:15	22:30
Saint-Max Mairie	21:10	21:25	21:40	21:55	22:10	22:25	22:40
Division de Fer	21:16	21:31	21:46	22:01	22:16	22:31	22:46
Place Charles III - Point Central	21:22	21:37	21:52	22:07	22:22	22:37	22:52
Joffre Gare	21:28	21:43	21:58	22:13	22:28	22:43	22:58
Parc de Saurupt	21:35	21:50	22:05	22:20	22:35	22:50	23:05
Vélodrome	21:41	21:56	22:11	22:26	22:41	22:56	23:11
Wandoeuvre CHU Brabois	21:52	22:07	22:22	22:37	22:52	23:07	23:22

Essey Mouzimpré	22:45	23:00	23:15	23:30	23:50	00:10
Saint-Max Mairie	22:55	23:10	23:25	23:40	00:00	00:20
Division de Fer	23:01	23:16	23:31	23:46	00:06	00:26
Place Charles III - Point Central	23:07	23:22	23:37	23:52	00:12	00:32
Joffre Gare	23:13	23:28	23:43	23:58	00:18	00:38
Parc de Saurupt	23:20	23:35	23:50	00:05	00:25	00:45
Vélodrome	23:26	23:41	23:56	00:11	00:31	00:51
Wandoeuvre CHU Brabois	23:37	23:52	00:07	00:22	00:42	01:02

## DIRECTION ESSEY MOUZIMPRÉ

Wandoeuvre CHU Brabois	05:00			
Vélodrome	05:10			
Parc de Saurupt	05:16			
Joffre Gare	05:23	UN DÉPART TOUTES LES 10 MINUTES DE 5H À 6H30	UN DÉPART TOUTES LES 7 MINUTES DE 6H30 À 19H	UN DÉPART TOUTES LES 10 MINUTES DE 19H À 21H
Place Charles III - Point Central	05:28			
Division de Fer	05:31			
Saint-Max Mairie	05:38			
Essey Mouzimpré	05:50			

Wandoeuvre CHU Brabois	21:00	21:15	21:30	21:45	22:00	22:15	22:30
Vélodrome	21:10	21:25	21:40	21:55	22:10	22:25	22:40
Parc de Saurupt	21:17	21:32	21:47	22:02	22:17	22:32	22:47
Joffre Gare	21:24	21:39	21:54	22:09	22:24	22:39	22:54
Place Charles III - Point Central	21:28	21:43	21:58	22:13	22:28	22:43	22:58
Division de Fer	21:31	21:46	22:01	22:16	22:31	22:46	23:01
Saint-Max Mairie	21:38	21:53	22:08	22:23	22:38	22:53	23:08
Essey Mouzimpré	21:50	22:05	22:20	22:35	22:50	23:05	23:20

Wandoeuvre CHU Brabois	22:45	23:00	23:15	23:30	23:50	00:10
Vélodrome	22:55	23:10	23:25	23:40	00:00	00:20
Parc de Saurupt	23:02	23:17	23:32	23:47	00:07	00:27
Joffre Gare	23:09	23:24	23:39	23:54	00:14	00:34
Place Charles III - Point Central	23:13	23:28	23:43	23:58	00:18	00:38
Division de Fer	23:16	23:31	23:46	00:01	00:21	00:41
Saint-Max Mairie	23:23	23:38	23:53	00:08	00:28	00:48
Essey Mouzimpré	23:35	23:50	00:05	00:20	00:40	01:00



CONSULTEZ  
LES INFOS  
TRAFIC  
EN TEMPS RÉEL

✕ @RESEAUUSTAN

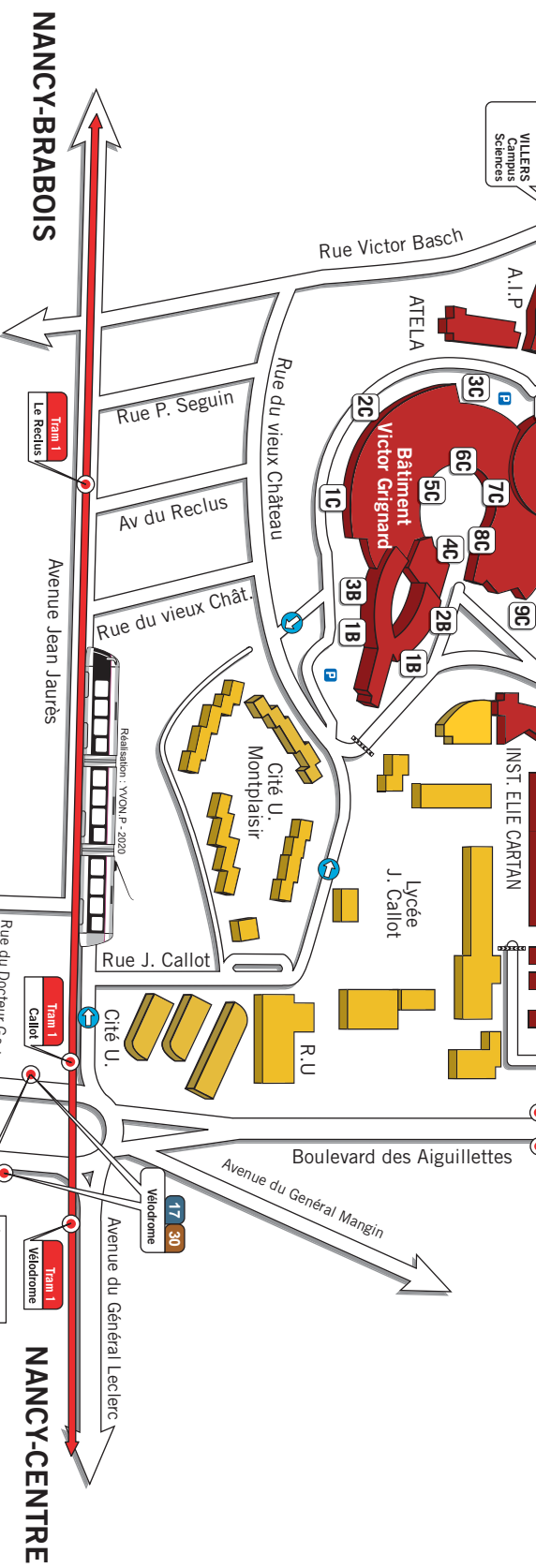
APPLI STAN  
RUBRIQUE INFO TRAFIC



CONTACTS  
ESPACE INFO MOBILITÉS  
2, PLACE DE LA RÉPUBLIQUE  
54000 NANCY

03 83 30 08 08

WWW.RESEAU-STAN.COM  
APPLI IPHONE ET ANDROÏD  
f ✕ y @



54506 VANDOEUVRE LES NANCY CEDEX  
Téléphone : +33 (0)3 72 74 50 00  
<http://fst.univ-lorraine.fr>

## 10

## Barrières



**Vélodrome**  
512 100

## Arrêts bus Suburbain

Tempo 3

Arrêts bus  
Réseau stan

**Tram 1**  
**Vélodrome**

## Arrêts Tram

Sortie 2b  
**NANCY-BRABOIS**  
**VANDOEUVE**

## PARIS (RN 4)

**METZ**

# EPINAL

# STRASBOURG

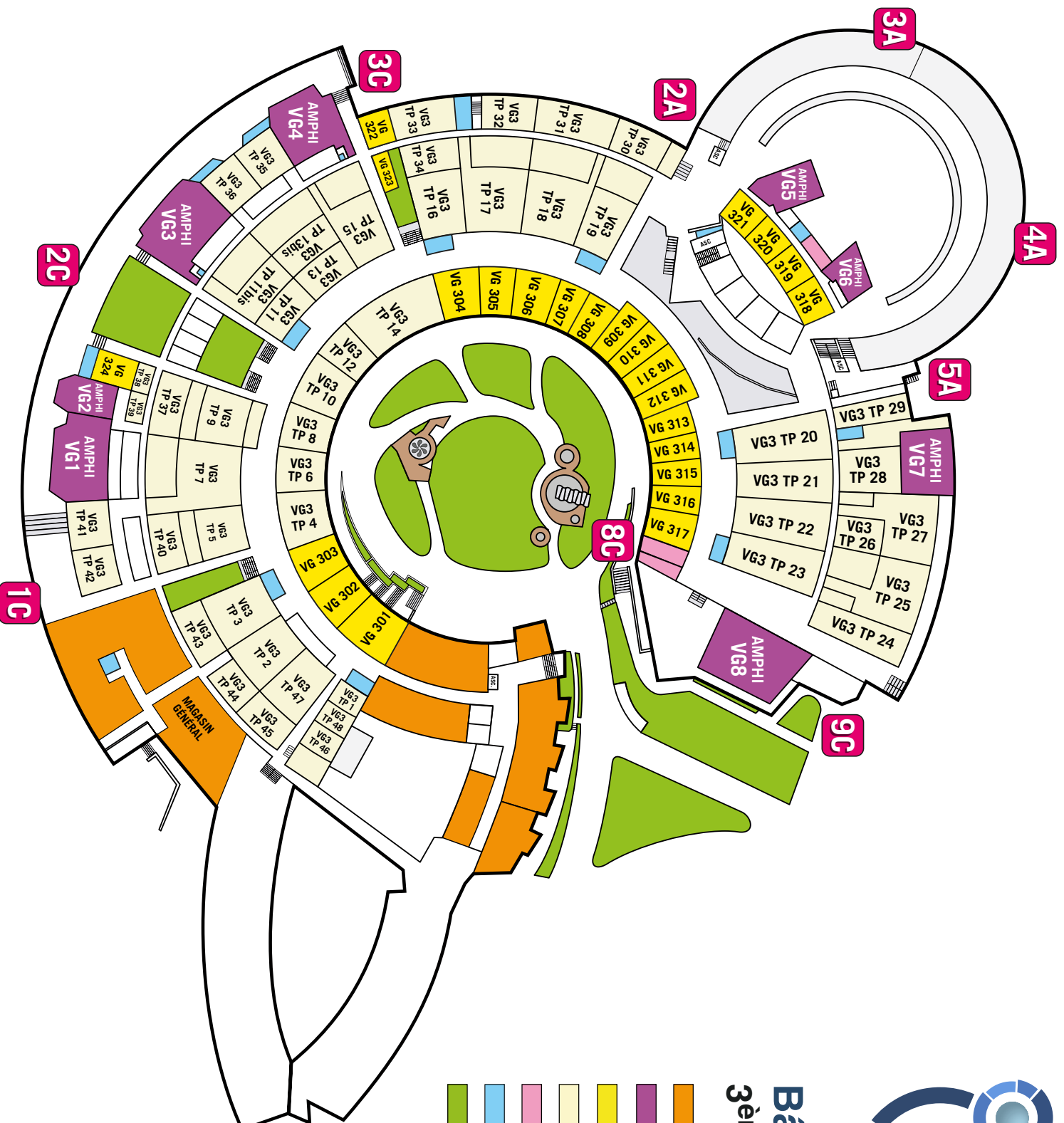
# VANDŒUVRE LES NANCY

## Carrefour du Vélodrome

**NANCY-CENTRE**



## Bâtiment Victor Grignard 3ème niveau - Salles VG



- Services informatiques et techniques
- Amphithéâtres VG1 à VG8
- Salles VG 301 à VG 324
- Salles VG3 TP 1 à VG3 TP 48
- Associations
- Toilettes
- Espace vert (extérieur)