

# Department of Physics Timetable for 2020/2021

The module timetables on page 2 onwards are ordered by module code.

LAST UPDATED: 25 September 2020

## Calendar and location of teaching rooms

			Michaelmas Term				
Week*			Mon	Tue	Wed	Thu	Fri
0	(11)	Oct	28-Sep	29-Sep	30-Sep	01-Oct	02-Oct
1	(12)		05-Oct	06-Oct	07-Oct	08-Oct	09-Oct
2	(13)		12-Oct	13-Oct	14-Oct	15-Oct	16-Oct
3	(14)		19-Oct	20-Oct	21-Oct	22-Oct	23-Oct
4	(15)		26-Oct	27-Oct	28-Oct	29-Oct	30-Oct
5	(16)	Nov	02-Nov	03-Nov	04-Nov	05-Nov	06-Nov
6	(17)		09-Nov	10-Nov	11-Nov	12-Nov	13-Nov
7	(18)		16-Nov	17-Nov	18-Nov	19-Nov	20-Nov
8	(19)		23-Nov	24-Nov	25-Nov	26-Nov	27-Nov
9	(20)	Dec	30-Nov	01-Dec	02-Dec	03-Dec	04-Dec
10	(21)		07-Dec	08-Dec	09-Dec	10-Dec	11-Dec

			Epiphany Term				
Week*			Mon	Tue	Wed	Thu	Fri
11	(26)	Jan	11-Jan	12-Jan	13-Jan	14-Jan	15-Jan
12	(27)		18-Jan	19-Jan	20-Jan	21-Jan	22-Jan
13	(28)		25-Jan	26-Jan	27-Jan	28-Jan	29-Jan
14	(29)	Feb	01-Feb	02-Feb	03-Feb	04-Feb	05-Feb
15	(30)		08-Feb	09-Feb	10-Feb	11-Feb	12-Feb
16	(31)		15-Feb	16-Feb	17-Feb	18-Feb	19-Feb
17	(32)		22-Feb	23-Feb	24-Feb	25-Feb	26-Feb
18	(33)	Mar	01-Mar	02-Mar	03-Mar	04-Mar	05-Mar
19	(34)		08-Mar	09-Mar	10-Mar	11-Mar	12-Mar
20	(35)		15-Mar	16-Mar	17-Mar	18-Mar	19-Mar

			Easter Term				
Week*			Mon	Tue	Wed	Thu	Fri
21	(41)	Apr	26-Apr	27-Apr	28-Apr	29-Apr	30-Apr
22	(42)	May	03-May	04-May	05-May	06-May	07-May

Room	Location
CG60, CG83, CG85, CG91, CG93 (Scarborough), CG218	Chemistry Building
CLC013, CLC202, CLC203, CLC406, CLC407	Calman Learning Centre
CM101, CM105, CM107, CM219, CM221	Mathematics Building
D104, D110, D118	Dawson Building
E005, E101, E102	Engineering Building
EH008, EH104, EH113	Elvet Hill House
ENGEX1	Christopherson Building (Engineering)
ES228/229, 230, 231	Earth Sciences Building
L50	Psychology Building
PCL050, PCL053, PCL057, PCL059	Palatine Centre (Law School)
Ph8 (James Duff), Ph30, Ph216, Ph221	Rochester Building (Physics Department)
RH001	Rowan House, Upper Mountjoy
TLC033, TLC101, TLC106, TLC117, TLC123	Teaching and Learning Centre, South Road
W007, W103 (Appleby), W309, W414	West Building (Geography)

\* Week numbers are Durham Teaching Weeks (with 'online timetable' week numbers shown in brackets).

This timetable is available in pdf at <https://www.dur.ac.uk/physics/students/timetable/>

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## Level 1 Timetable 2020/2021

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### PHYS1081 Introduction to Astronomy

A User's Guide to the Night Sky	UG	Prof Swinbank
Solar System	SS	Prof Swinbank
Stars and Exoplanets	SE	Dr Norberg
Galaxies	Gal	Dr Norberg
Cosmic History	CH	Prof Frenk

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in yellow.

#### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Tue	0900	online	UG	UG	UG	UG	SS	SS	SS	SE	SE	SE
Fri	1000	online	UG	UG	UG	SS	SS	SS	SE	SE	SE	SE

#### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Tue	0900	online	SE	SE	SE	Gal	Gal	Gal	CH	CH	CH	-
Fri	1000	online	SE	SE	Gal	Gal	Gal	CH	CH	CH	CH	-

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## PHYS1101 Discovery Skills in Physics

Introduction and Safety	I&S	Dr Swift
Record Keeping	RK	Dr Petts
Spreadsheets	XL	Dr Petts
Errors Lectures	EL	Dr Mizouri
Introduction to Programming	Prog	Dr Peach
Data Analysis	DA	Dr Mizouri

Library/Employability	LEmp	Mr Theakston/Mr Fox
Report Writing	RW	Dr Petts
Presentation Skills	PresSk	Dr Mizouri
Skills Sessions	Skills1	Dr Petts and others
Discovery Experiments	DExp	Dr Swift and others

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in **yellow**.

### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Lectures												
Mon	1700	online	I&S <sup>1</sup>	-	-	-	-	-	-	-	-	-
Tue	1000	online	EL	EL	-	-	-	-	-	-	-	-
Wed	1200	online	RK	-	-	-	-	-	-	-	-	-
Thu	0900	online	EL	EL	-	EL	LEmp	DA	-	RW	Prog	-
Thu	1700	online	XL	-	-	-	-	-	-	-	-	-
Laboratories <sup>2</sup>												
Mon/Tue /Thu/Fri	1400– 1700	Ph122– Ph130, Ph228, online	-	Skills1	Skills1	Skills1	Skills1	Skills1	Skills1	Skills1	Skills1	Skills1
Wed	0900– 1200											
Workshops <sup>3</sup>												
Mon/Tue /Thu/Fri	1700	online	-	-	-	-	-	-	-	-	-	Prog

<sup>1</sup> All students taking this module *must* watch in full the Introduction and Safety lecture online.

<sup>2</sup> Laboratory classes take place from 1400 to 1700 on Mondays, Tuesdays, Thursdays and Fridays, and from 0900 to 1200 on Wednesdays. Each student takes part in one session per week, starting in Week 2, alternating in-person and online. The allocation of students to laboratory classes on each day of the week will be displayed separately.

<sup>3</sup> Programming workshops take place at the times shown, and each student attends one session per week, starting in Week 10. The allocation of students to workshops on each day of the week will be displayed separately.

### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Lectures												
Thu	0900	online	RW	-	-		-	-	PresSk	-	-	-
Laboratories <sup>2</sup>												
Mon/Tue /Thu/Fri	1400– 1700	Ph122– Ph130, Ph228, online	Info Lit <sup>4</sup>	DExp	DExp	DExp	DExp	DExp	DExp	DExp	DExp	DExp
Wed	0900– 1200											
Workshops <sup>3</sup>												
Mon/Tue /Thu/Fri	1700	online	Prog	Prog	Prog	Prog	Prog	Prog	Prog	Prog	-	-

<sup>4</sup> In Week 11 each student will take part in an Information Literacy session. Further details will be announced.

### Easter Term

All students who will be taking the module PHYS2641 Laboratory Skills and Electronics (or PHYS3681 Laboratory Skills and Electronics 3) in 2021/22 must ensure that they are available to undertake a week-long project following the end of the examination period in June 2021. Subject to confirmation, these projects will take place in weeks 27 and 28 (7–19 June 2021) and will contribute to the summative assessment for the Level 2 module. Further details will be announced.

# PHYS1122 Foundations of Physics 1

Mechanics part 1	Mech1	Prof Chadwick
Mechanics part 2	Mech2	Prof Morris
Programming for Foundations	ProgF	Dr Wrathmall
Circuits	Circ	Dr Wrathmall
Waves and Optics	WO	Dr Peach
Oscillations	Osc	Prof Morris
Electromagnetism	EMag	Dr Aufderhorst-Roberts
Relativity	Rel	Prof Done
Quantum Mechanics	QM	Prof Done
Collisions, Conservation and Fields	CCF	Prof Morris
Progress Test	Test	Dr Potvliege
Tutorials		Tutors

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in **yellow**.

## Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Mon	1100	online	Mech1	Mech1	Mech1	Mech2	Mech2	Mech2	Osc	WO	EMag	EMag
Tue	1100	online	Mech1	Mech1	Mech1	Mech2	Mech2	Osc	WO	WO	WO	EMag
Thu	1100	online	ProgF	ProgF	Osc	Osc	Osc	Test	Osc	WO	WO	WO
Fri	1100	online	Mech1	Mech1	Mech2	Mech2	Mech2	WO	WO	WO	EMag	EMag

Tutorials take place in weeks 2–21 at one of the following times: Mondays 0900, Mondays 1000, Mondays 1700, Tuesdays 1700, Thursdays 1000, Thursdays 1700 or at another time at the discretion of the tutor. The allocation of students to tutor groups and rooms will be displayed separately.

## Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Mon	1100	online	EMag	EMag	EMag	EMag	EMag	EMag	CCF	CCF	CCF	CCF
Tue	1100	online	WO	WO	EMag	EMag	EMag	EMag	Circ	Circ	Circ	Circ
Thu	1100	online	EMag	QM	QM	QM	QM	Test	QM	QM	QM	QM
Fri	1100	online	Rel	Rel	Rel	Rel	Rel	Rel	Rel	Rel	CCF	CCF

Collection Examination: From 0915 on **Saturday** 16 January. Further details will be announced.

## Easter Term

Day	Time	Room	Teaching Week									
			21	22								
Mon	1100	online	Mech	-								
Tue	1100	online	WO/Osc	-								
Wed	1200	online	CCF	-								
Thu	1100	online	EMag/Circ	-								
Fri	1100	online	Rel/QM	-								

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## PHYS1141 Maths Toolkit for Scientists

Introduction	MTIntro	Dr Wilman
Maths Toolkit Support Workshops	MT	Dr Wilman and others
Group Problem Solving Workshops	GPS	Dr He and others
Maths Toolkit Test	Test	Dr Wilman

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in **yellow**.

### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Tue	0900	online	MTIntro	-	-	-	-	-	-	-	-	-
		online	-	MT	MT	MT	MT	MT	MT	MT	MT	MT

### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Tue	0900	online	MT	MT	MT	MT	MT	MT	MT	MT	-	-
Fri	1000	online	GPS	GPS	GPS	GPS	GPS	GPS	GPS	GPS	-	-

### Easter Term

Day	Time	Room	Teaching Week									
			21	22								
Tue	0900	ES228/ 229	Test	-								

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## Level 2 Timetable 2020/2021

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### PHYS2581 Foundations of Physics 2A

Quantum Mechanics 2	QM2	Prof Cole
Electromagnetism	EM	Prof Hampshire

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in **yellow**.

#### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Tue	0900	online	QM2	QM2	QM2	QM2	QM2	QM2	QM2	QM2	QM2	QM2
Thu	1000	online	QM2	QM2	QM2	QM2	QM2	QM2	QM2	QM2	QM2	QM2
Fri	1200	online	QM2	-	-	-	-	-	-	-	-	-
Wkshp <sup>1</sup>	1400	Various	-	QM2	QM2	QM2	QM2	QM2	QM2	QM2	QM2	QM2

<sup>1</sup> Workshops take place in the weeks shown, as follows:

Mondays 1400–1500 in TLC101,  
Tuesdays 1400–1500 in TLC123,  
Thursdays 1400–1500 in TLC123,  
Fridays 1400–1500 in TLC123,

and each student attends one of these classes (the same slot each week). The allocation of students to workshops is displayed separately. To ensure social distancing, each student will attend in person *once* every three weeks and online in the other weeks.

#### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Tue	0900	online	EM	EM	EM	EM	EM	EM	EM	EM	EM	-
Thu	1000	online	EM	EM	EM	EM	EM	EM	EM	EM	EM	-
Fri	1200	online	EM	EM	EM	-	-	-	-	-	-	-
Wkshp <sup>1</sup>	1400	Various	-	EM	EM	EM	EM	EM	EM	EM	EM	EM

<sup>1</sup> Workshops take place in the weeks shown, as follows:

Mondays 1400–1500 in TLC101,  
Tuesdays 1400–1500 in TLC123,  
Thursdays 1400–1500 in TLC123,  
Fridays 1400–1500 in TLC123,

and each student attends one of these classes (the same slot each week). The allocation of students to workshops is displayed separately. To ensure social distancing, each student will attend in person *once* every three weeks and online in the other weeks.

#### Easter Term

Day	Time	Room	Teaching Week									
			21	22								
Tue	0900	online	QM2	-								
Thu	1000	online	EM	-								

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## PHYS2591 Foundations of Physics 2B

Thermodynamics	Th	Dr Swift
Condensed Matter Physics	CMP	Prof Hatton
Optics	Op	Prof Jones

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in **yellow**.

### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Mon	1100	Online	Th	Th	Th	Th	Th	Th	CMP	CMP	CMP	CMP
Thu	1200	Online	Th	Th	Th	Th	Th	Th	CMP	CMP	CMP	CMP
Fri	0900	Online	-	-	-	-	Th	Th	CMP	CMP	-	-
Wkshp <sup>1</sup>	1400	Various	-	Th	Th	Th	Th	Th	Th	CMP	-	CMP

<sup>1</sup> Workshops take place in the weeks shown, as follows:

Mondays 1400–1500 in Ustinov Room (Van Mildert College),  
Tuesdays 1400–1500 in Ustinov Room (Van Mildert College),  
Thursdays 1400–1500 in TLC101,  
Fridays 1400–1500 in TLC101,

and each student attends one of these classes (the same slot each week). The allocation of students to workshops is displayed separately. To ensure social distancing, each student will attend in person *once* every three weeks and online in the other weeks.

### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Mon	1100	Online	CMP	CMP	Op	Op	Op	Op	Op	Op	Op	-
Thu	1200	Online	CMP	CMP	Op	Op	Op	Op	Op	Op	Op	-
Fri	0900	Online	-	-	-	-	-	-	-	-	-	-
Wkshp <sup>1</sup>	1400	Various	CMP	CMP	CMP	CMP	Op	Op	Op	Op	Op	Op

<sup>1</sup> Workshops take place in the weeks shown, as follows:

Mondays 1400–1500 in Ustinov Room (Van Mildert College),  
Tuesdays 1400–1500 in Ustinov Room (Van Mildert College),  
Thursdays 1400–1500 in TLC101,  
Fridays 1400–1500 in TLC101,

and each student attends one of these classes (the same slot each week). The allocation of students to workshops is displayed separately. To ensure social distancing, each student will attend in person *once* every three weeks and online in the other weeks.

### Easter Term

Day	Time	Room	Teaching Week									
			21	22								
Mon	1100	Online	Th	-								
Thu	1200	Online	Op	-								
Fri	0900	Online	CMP	-								

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## PHYS2611 Mathematical Methods in Physics

Mathematical Methods part 1	MMP1	Dr Zambon
Mathematical Methods part 2	MMP2	Dr Testrow

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in **yellow**.

### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Mon	1300	Online	MMP1	MMP1	MMP1	MMP1	MMP1	MMP1	MMP1	MMP1	MMP1	MMP1
Wed	1200	Online	MMP1	MMP1	MMP1	MMP1	MMP1	MMP1	MMP1	MMP1	MMP1	-
Wkshp <sup>1</sup>	1500	Online	-	MMP1	MMP1	MMP1	MMP1	MMP1	MMP1	MMP1	MMP1	MMP1

<sup>1</sup> Workshops take place on Mondays, Tuesdays, Thursdays and Fridays in the weeks shown, and each student attends one of these classes (the same slot each week). The allocation of students to workshops is displayed separately.

### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Mon	1300	Online	MMP2	MMP2	MMP2	MMP2	MMP2	MMP2	MMP2	MMP2	MMP2	-
Wed	1200	Online	MMP2	MMP2	MMP2	MMP2	MMP2	MMP2	MMP2	MMP2	-	-
Wkshp <sup>1</sup>	1500	Online	-	MMP2	MMP2	MMP2	MMP2	MMP2	MMP2	MMP2	MMP2	MMP2

<sup>1</sup> Workshops take place on Mondays, Tuesdays, Thursdays and Fridays in the weeks shown, and each student attends one of these classes (the same slot each week). The allocation of students to workshops is displayed separately.

### Easter Term

Day	Time	Room	Teaching Week									
			21	22								
Mon	1300	Online	MMP1	-								
Wed	1200	Online	MMP2	-								

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## PHYS2621 Stars and Galaxies

Observational Techniques	OT	Dr Smith
Stars	S	Dr Scaringi
Galactic Astronomy	GA	Prof Theuns

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in yellow.

### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Mon	1000	Online	OT	OT	OT	OT	S	S	S	S	S	S
Fri	1000	Online	OT	OT	OT	OT	S	S	S	S	S	-
Wkshp <sup>1</sup>	1500	Online	-	OT	OT	OT	OT	S	S	S	S	S

<sup>1</sup> Workshops take place on Mondays, Tuesdays, Thursdays and Fridays in the weeks shown, and each student attends one of these classes (the same slot each week). The allocation of students to workshops is displayed separately.

### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Mon	1000	Online	S	S	S	GA	GA	GA	GA	GA	GA	-
Fri	1000	Online	S	S	S	GA	GA	GA	GA	GA	-	-
Wkshp <sup>1</sup>	1500	Online	-	S	S	S	GA	GA	GA	GA	GA	GA

<sup>1</sup> Workshops take place on Mondays, Tuesdays, Thursdays and Fridays in the weeks shown, and each student attends one of these classes (the same slot each week). The allocation of students to workshops is displayed separately.

### Easter Term

Day	Time	Room	Teaching Week									
			21	22								
Mon	1000	Online	OT	S								
Fri	1000	Online	GA	-								

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## PHYS2631 Theoretical Physics 2

Classical Mechanics	CM	Prof Massey
Quantum Theory 2	QT2	Dr Potvliege

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in **yellow**.

### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Tue	1100	Online	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM
Fri	1100	Online	CM	CM	CM	CM	CM	CM	CM	CM	CM	-
Wkshp <sup>1</sup>	1600	Online	-	CM	CM	CM	CM	CM	CM	CM	CM	CM

<sup>1</sup> Workshops take place on Mondays, Tuesdays, Thursdays and Fridays in the weeks shown, and each student attends one of these classes (the same slot each week). The allocation of students to workshops is displayed separately.

### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Tue	1100	Online	QT2	QT2	QT2	QT2	QT2	QT2	QT2	QT2	QT2	-
Fri	1100	Online	QT2	QT2	QT2	QT2	QT2	QT2	QT2	QT2	-	-
Wkshp <sup>1</sup>	1600	Online	-	QT2	QT2	QT2	QT2	QT2	QT2	QT2	QT2	QT2

<sup>1</sup> Workshops take place on Mondays, Tuesdays, Thursdays and Fridays in the weeks shown, and each student attends one of these classes (the same slot each week). The allocation of students to workshops is displayed separately.

### Easter Term

Day	Time	Room	Teaching Week									
			20	21								
Tue	1100	Online	CM	-								
Fri	1100	Online	QT2	-								

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## PHYS2641 Laboratory Skills and Electronics

Computational Physics	CP	Prof Richardson
Careers and Employability	Careers	Dr Zambon and others
Electronics Lectures	Elec	Dr Hindmarch
Skills Laboratory	Skills	Dr Wilman and others
Electronics Laboratory	ELab	Dr Hindmarch and others
Research-led Investigations	RLI	Dr Wilman and others

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in yellow.

### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Lectures												
Wed	0900	Online	Briefing <sup>1</sup>	Careers	Careers	Careers	Careers	Careers	Elec	Elec	Elec	Elec
Thu	1100	Online	CP	CP	CP	CP	CP	CP	CP	CP	CP	-
Laboratories <sup>2</sup>												
		Online	-	Skills	Skills	Skills	Skills	Skills	Skills/ ELab	ELab	ELab	ELab
Workshops <sup>3</sup>												
	1700	Online	-	CP	CP	CP	CP	CP	CP	CP	CP	-

<sup>1</sup> Students *must* watch in full an introductory briefing by Dr Hindmarch online.

<sup>2</sup> Practical work takes place remotely, at times of the student team's own convenience, not explicitly constrained by day or time. The guideline is 3 hours per week. Supervisor availability is likely to be highest (and so meetings preferred) during weekday afternoons. The allocation of students to teams will be displayed separately.

<sup>3</sup> Computational Physics workshops take place on Mondays, Tuesdays, Thursdays and Fridays in the weeks shown, and each student attends one of these classes (the same slot each week). The allocation of students to workshops is displayed separately.

### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Lectures												
Wed	0900	Online	Elec	-	-	-	-	-	-	-	-	-
Laboratories <sup>4</sup>												
		Online	ELab <sup>5</sup> /RLI (plan)	ELab <sup>5</sup> /RLI (plan)	RLI (plan)	RLI	RLI	RLI	RLI	RLI	RLI	-

<sup>4</sup> Practical work takes place remotely, at times of the student team's own convenience, not explicitly constrained by day or time. The guideline is 3 hours per week. Supervisor availability is likely to be highest (and so meetings preferred) during weekday afternoons.

<sup>5</sup> Each student undertakes an Electronics assessed exercise, with a guideline of 3 hours, across weeks 11 and 12. Further details will be announced.

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## PHYS2651 Physics in Society

Physics in Society	PinS	Prof Lancaster
Physics in Society Project	P1–4	Prof Lancaster and others

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in yellow.

### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Lectures												
Wed	1000	Online	PinS	PinS	PinS	PinS	PinS	PinS	PinS	PinS	PinS	-
Thu	0900	Online	PinS	PinS	PinS	PinS	PinS	PinS	PinS	PinS	PinS	-
Project Tutorials <sup>1</sup>												
Wed	1000	various	-	-	-	-	-	-	-	-	-	P1
Wed	1200	various	-	-	-	-	-	-	-	-	-	P2
Thu	0900	various	-	-	-	-	-	-	-	-	-	P3
Fri	1700	various	-	-	-	-	-	-	-	-	-	P4

<sup>1</sup> Project: The allocation of students to groups P1, P2, P3 and P4 will be announced towards the end of the Michaelmas Term. All students should attend the initial supervisory meeting in week 10. Then, in Epiphany Term, each student attends a total of three 1-hour tutorials (the same slot each time), in the weeks shown. The final meeting will take the form of individual interviews.

### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Project Tutorials												
Wed	1000	various	-	P1	P3	P1	P3	-	-	P1	P3	-
Thu	0900	various	-	P2	P4	P2	P4	-	-	P2	P4	-

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## Level 3 Timetable 2020/2021

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### PHYS3561 Computing Project

Introductory lecture	Intro	Dr Zambon
Computing Project	C1–4	Dr Zambon and others

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in **yellow**.

#### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Thu	1600	Online	<b>Intro</b>	-	-	-	-	-	-	-	-	-
Tutorials <sup>1</sup>												
Tue	0900–1200	Online	-	C1	C3	C1	C3	C1 <sup>2</sup>	C3 <sup>2</sup>	C1	C3	-
Fri	1000–1300	Online	-	C2	C4	C2	C4	C2 <sup>2</sup>	C4 <sup>2</sup>	C2	C4	-

<sup>1</sup> Computing Project tutorials: The allocation of students to groups C1, C2, C3 and C4 is displayed separately. All students should watch in full the introductory lecture online in week 1. Thereafter, each student attends one 1-hour tutorial per fortnight (the same slot each week), during a 3-hour ‘practical’ block as indicated above. An optional drop-in programming help session will also operate during each 3-hour block.

<sup>2</sup> The Computing tutorials in weeks 6 and 7 will include formatively-assessed practice posters. Further details will be announced.

#### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Tutorials <sup>1</sup>												
Tue	0900–1200	Online	C1 <sup>3</sup>	C3 <sup>3</sup>	C1	C3	C1 <sup>4</sup>	C3 <sup>4</sup>	C1	C3	-	-
Fri	1000–1300	Online	C2 <sup>3</sup>	C4 <sup>3</sup>	C2	C4	C2 <sup>4</sup>	C4 <sup>4</sup>	C2	C4	-	-

<sup>3</sup> The Computing tutorials in weeks 11 and 12 will include oral presentations. Further details will be announced.

<sup>4</sup> The Computing tutorials in weeks 15 and 16 will include summatively-assessed poster presentations. Further details will be announced.

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## PHYS3581 Team Project

Team Project Supervisors		Prof Chadwick and others
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This activity is taken in one term only.

The allocation of students to Team Projects for a given term is displayed separately.

Team Project sessions take place online from 1400 to 1700 on Mondays, Tuesdays, Thursdays and Fridays, starting in Week 2 (Michaelmas Term) or Week 12 (Epiphany Term).

Students taking module PHYS3581, who have been allocated projects in the Michaelmas Term, must attend a talk by Prof Chadwick on Friday 9 October from 1400 to 1600 online.

Students taking module PHYS3581, who have been allocated projects in the Epiphany Term, must attend a talk by Prof Chadwick on Friday 15 January from 1400 to 1600 online.

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## PHYS3591 Mathematics Workshop

Complex Analysis	CA	Prof Gregory
Infinite Dimensional Vector Spaces	VS	Prof Khoze
Integral Transforms	IT	Dr Tjhung
Calculus of Variations and Infinite Series	CVIS	Dr Turner

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in **yellow**.

### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Workshops												
Mon	1000–1200	Online	CA	CA	CA	CA	CA	VS	VS	VS	VS	-
Thu	1000–1200	Online	CA	CA	CA	CA	VS	VS	VS	VS	VS	-

Open Book Examinations: Monday 11 January 2021 from 1400 to 1600 (room TBA) and  
Monday 26 April 2021 from 1400 to 1600 (room TBA).

### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Workshops												
Mon	1000–1200	Online	-	IT	IT	IT	IT	IT	CVIS	CVIS	CVIS	CVIS
Thu	1000–1200	Online	-	IT	IT	IT	IT	CVIS	CVIS	CVIS	CVIS	CVIS

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## PHYS3601 Advanced Laboratory

Advanced Laboratory Leader		Prof Jones
Astronomy		Prof Swinbank, Prof Edge
High Energy Physics		Dr Terry
Condensed Matter Physics		Dr He
Optical and Atomic Physics		Dr O'Brien

All students taking module PHYS3601 *must* watch in full a talk by Prof Jones online in week 1, followed by laboratory section-specific briefings as announced.

This activity is normally taken in one term only, but to make the module resistant to a possible lockdown in Epiphany Term, the conventional Michaelmas/Epiphany division will be replaced with a partitioning of the cohort into two groups, both of which will start preparatory work early in the Michaelmas Term. It is anticipated that one group will undertake practical work in teaching weeks 3–7 inclusive whilst the other group will undertake practical work in teaching weeks 8–12 inclusive. This structure may be relaxed if the Covid-19 scenario allows. Either or both groups may need to undertake practical work in either of the two terms as appropriate, and students must be prepared to be flexible as circumstances change.

To facilitate flexibility, the laboratories will be open as much as possible: all afternoons, and some mornings too if timetable restrictions permit. Students will be required to sign in and out of every laboratory session, in order that staff can keep track of the hours undertaken. The total time a student can spend carrying out experimental work may be capped.

The allocation of students to laboratory sections and groups is displayed separately.

More details about these arrangements will be given in Prof Jones's introductory talk.

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## PHYS3621 Foundations of Physics 3A

Quantum Mechanics 3	QM3	Dr Gidopoulos
Nuclear & Particle Physics	NPP	Dr Bauer

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in **yellow**.

### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Mon	0900	Online	QM3	QM3	QM3	QM3	QM3	NPP	NPP	NPP	NPP	-
Tue	1300	Online	QM3	QM3	QM3	QM3	QM3	NPP	NPP	NPP	NPP	-
Fri	1300	Online	QM3	QM3	QM3	QM3	NPP	NPP	NPP	-	-	-
Wkshp*	Various	Various	-	QM3	QM3	QM3	QM3	QM3	-	NPP	NPP	-

\* Workshops take place in the weeks shown, as follows:

Mondays 1100–1200 in TLC123,  
Tuesdays 0900–1000 in TLC101,  
Thursdays 0900–1000 in TLC123,  
Fridays 1700–1800 in TLC123,

and each student attends one of these classes (the same slot each time). The allocation of students to workshops is displayed separately. To ensure social distancing, each student will attend in person *once* every three weeks and online in the other weeks.

### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Mon	0900	Online	NPP	NPP	NPP	NPP	NPP	NPP	NPP	NPP	NPP	-
Tue	1300	Online	NPP	NPP	NPP	NPP	NPP	NPP	NPP	NPP	NPP	-
Wkshp*	Various	Various	NPP	NPP	NPP	NPP	NPP	NPP	NPP	NPP	NPP	NPP

\* Workshops take place in the weeks shown, as follows:

Mondays 1100–1200 in TLC123,  
Tuesdays 0900–1000 in TLC101,  
Thursdays 0900–1000 in TLC123,  
Fridays 1700–1800 in TLC123,

and each student attends one of these classes (the same slot each time). The allocation of students to workshops is displayed separately. To ensure social distancing, each student will attend in person *once* every three weeks and online in the other weeks.

### Easter Term

Day	Time	Room	Teaching Week									
			21	22								
Mon	0900	Online	QM3	NPP								
Tue	1300	Online	NPP	-								

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## PHYS3631 Foundations of Physics 3B

Statistical Physics	SP	Prof Clark
Condensed Matter Physics part 1	CMP1	Dr Mendis
Condensed Matter Physics part 2	CMP2	Dr Mendis

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in **yellow**.

### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Mon	1300	Online	SP	SP	SP	SP	SP	SP	SP	SP	SP	-
Wed	1100	Online	SP	SP	SP	SP	SP	SP	SP	SP	SP	-
Thu	1700	Online	-	-	-	-	-	-	-	-	-	-
Wkshp*	Various	TLC123	-	-	SP	SP	SP	SP	SP	SP	SP	-

\* Workshops take place in the weeks shown, as follows:

Mondays 1000–1100,  
Tuesdays 1700–1800,  
Thursdays 1000–1100,  
Thursdays 1600–1700,

and each student attends one of these classes (the same slot each time). The allocation of students to workshops is displayed separately. To ensure social distancing, each student will attend in person *once* every three weeks and online in the other weeks.

### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Mon	1300	Online	-	-	CMP1	CMP1	CMP1	CMP2	CMP2	CMP2	CMP2	-
Wed	1100	Online	CMP1	CMP1	CMP1	CMP1	CMP1	CMP2	CMP2	CMP2	CMP2	-
Thu	1700	Online	CMP1	CMP1	CMP1	CMP1	CMP2	CMP2	CMP2	CMP2	-	-
Wkshp*	Various	TLC123	CMP1	CMP1	CMP1	CMP1	CMP1	CMP2	CMP2	CMP2	CMP2	CMP2

\* Workshops take place in the weeks shown, as follows:

Mondays 1000–1100,  
Tuesdays 1700–1800,  
Thursdays 1000–1100,  
Thursdays 1600–1700,

and each student attends one of these classes (the same slot each time). The allocation of students to workshops is displayed separately. To ensure social distancing, each student will attend in person *once* every three weeks and online in the other weeks.

### Easter Term

Day	Time	Room	Teaching Week									
			21	22								
Mon	1300	Online	SP	-								
Wed	1100	Online	CMP1	-								
Thu	1700	Online	CMP2	-								

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## PHYS3651 Planets and Cosmology 3

Cosmology part 1	Cos1	Dr Wilman
Cosmology part 2	Cos2	Prof Li
Planetary Systems	Planet	Dr Eke

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in **yellow**.

### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Mon	1700	Online	Cos1	Cos1	Cos1	Cos1	Cos1	Cos2	Cos2	Cos2	Cos2	-
Wed	0900	Online	Cos1	Cos1	Cos1	Cos1	Cos2	Cos2	Cos2	Cos2	Cos2	-
Wkshp*	Various	Online	-	-	Cos1	Cos1	Cos1	Cos1	Cos2	Cos2	Cos2	-

\* Workshops take place in the weeks shown, as follows:      Tuesdays 1200–1300,  
   Thursdays 1200–1300,  
and each student attends one of these classes (the same slot each time). The allocation of students to workshops is displayed separately.

### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Mon	1700	Online	Planet	Planet	Planet	Planet	Planet	Planet	Planet	Planet	Planet	-
Wed	0900	Online	Planet	Planet	Planet	Planet	Planet	Planet	Planet	Planet	Planet	-
Wkshp*	Various	Online	Cos2	Planet	Planet	Planet	Planet	Planet	Planet	Planet	Planet	Planet

\* Workshops take place in the weeks shown, as follows:      Tuesdays 1200–1300,  
   Thursdays 1200–1300,  
and each student attends one of these classes (the same slot each time). The allocation of students to workshops is displayed separately.

### Easter Term

Day	Time	Room	Teaching Week									
			21	22								
Mon	1700	Online	Cos2	-								
Wed	0900	Online	Planet	-								

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## PHYS3661 Theoretical Physics 3

Relativistic Electrodynamics	RED	Dr Andersen
Quantum Theory 3	QT3	Prof Richardson

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in yellow.

### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Wed	1200	Online	RED	RED	RED	RED	RED	RED	RED	RED	RED	-
Thu	1300	Online	RED	RED	RED	RED	RED	RED	RED	RED	RED	-
Wkshp*	Various	Online	-	-	RED	RED	RED	RED	RED	RED	RED	-

\* Workshops take place in the weeks shown, as follows: Mondays 1200–1300,  
Fridays 1200–1300,  
and each student attends one of these classes (the same slot each time). The allocation of students to workshops is displayed separately.

### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Wed	1200	Online	QT3	QT3	QT3	QT3	QT3	QT3	QT3	QT3	QT3	-
Thu	1300	Online	QT3	QT3	QT3	QT3	QT3	QT3	QT3	QT3	QT3	-
Wkshp*	Various	Online	RED	QT3	QT3	QT3	QT3	QT3	QT3	QT3	QT3	QT3

\* Workshops take place in the weeks shown, as follows: Mondays 1200–1300,  
Fridays 1200–1300,  
and each student attends one of these classes (the same slot each time). The allocation of students to workshops is displayed separately.

### Easter Term

Day	Time	Room	Teaching Week									
			21	22								
Wed	1200	Online	RED	-								
Thu	1300	Online	QT3	-								

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## PHYS3671 Foundations of Physics 3C

Thermodynamics	Th	Dr Swift
Condensed Matter Physics	CMP	Prof Hatton
Optics	Op	Prof Jones

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in **yellow**.

### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Mon	1100	Online	Th	Th	Th	Th	Th	Th	CMP	CMP	CMP	CMP
Thu	1200	Online	Th	Th	Th	Th	Th	Th	CMP	CMP	CMP	CMP
Fri	0900	Online	-	-	-	-	Th	Th	CMP	CMP	-	-
Wkshp <sup>1</sup>	1400	Various	-	Th	Th	Th	Th	Th	Th	CMP	-	CMP

<sup>1</sup> Workshops take place in the weeks shown, as follows:

Mondays 1400–1500 in Ustinov Room (Van Mildert College),  
Tuesdays 1400–1500 in Ustinov Room (Van Mildert College),  
Thursdays 1400–1500 in TLC101,  
Fridays 1400–1500 in TLC101,

and each student attends one of these classes (the same slot each week). The allocation of students to workshops is displayed separately. To ensure social distancing, each student will attend in person *once* every three weeks and online in the other weeks.

### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Mon	1100	Online	CMP	CMP	Op	Op	Op	Op	Op	Op	Op	-
Thu	1200	Online	CMP	CMP	Op	Op	Op	Op	Op	Op	Op	-
Fri	0900	Online	-	-	-	-	-	-	-	-	-	-
Wkshp <sup>1</sup>	1400	Various	CMP	CMP	CMP	CMP	Op	Op	Op	Op	Op	Op

<sup>1</sup> Workshops take place in the weeks shown, as follows:

Mondays 1400–1500 in Ustinov Room (Van Mildert College),  
Tuesdays 1400–1500 in Ustinov Room (Van Mildert College),  
Thursdays 1400–1500 in TLC101,  
Fridays 1400–1500 in TLC101,

and each student attends one of these classes (the same slot each week). The allocation of students to workshops is displayed separately. To ensure social distancing, each student will attend in person *once* every three weeks and online in the other weeks.

### Easter Term

Day	Time	Room	Teaching Week									
			21	22								
Mon	1100	Online	Th	-								
Thu	1200	Online	Op	-								
Fri	0900	Online	CMP	-								

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## PHYS3681 Laboratory Skills and Electronics 3

Computational Physics	CP	Prof Richardson
Careers and Employability	Careers	Dr Zambon and others
Electronics Lectures	Elec	Dr Hindmarch
Skills Laboratory	Skills	Dr Wilman and others
Electronics Laboratory	ELab	Dr Hindmarch and others
Research-led Investigations	RLI	Dr Wilman and others

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in yellow.

### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Lectures												
Wed	0900	Online	Briefing <sup>1</sup>	Careers	Careers	Careers	Careers	Careers	Elec	Elec	Elec	Elec
Thu	1100	Online	CP	CP	CP	CP	CP	CP	CP	CP	CP	-
Laboratories <sup>2</sup>												
		Online	-	Skills	Skills	Skills	Skills	Skills	Skills/ ELab	ELab	ELab	ELab
Workshops <sup>3</sup>												
	1700	Online	-	CP	CP	CP	CP	CP	CP	CP	CP	-

<sup>1</sup> Students *must* watch in full an introductory briefing by Dr Hindmarch online.

<sup>2</sup> Practical work takes place remotely, at times of the student team's own convenience, not explicitly constrained by day or time. The guideline is 3 hours per week. Supervisor availability is likely to be highest (and so meetings preferred) during weekday afternoons. The allocation of students to teams will be displayed separately.

<sup>3</sup> Computational Physics workshops take place on Mondays, Tuesdays, Thursdays and Fridays in the weeks shown, and each student attends one of these classes (the same slot each week). The allocation of students to workshops is displayed separately.

### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Lectures												
Wed	0900	Online	Elec	-	-	-	-	-	-	-	-	-
Laboratories <sup>4</sup>												
		Online	ELab <sup>5</sup> /RLI (plan)	ELab <sup>5</sup> /RLI (plan)	RLI (plan)	RLI	RLI	RLI	RLI	RLI	RLI	-

<sup>4</sup> Practical work takes place remotely, at times of the student team's own convenience, not explicitly constrained by day or time. The guideline is 3 hours per week. Supervisor availability is likely to be highest (and so meetings preferred) during weekday afternoons.

<sup>5</sup> Each student undertakes an Electronics assessed exercise, with a guideline of 3 hours, across weeks 11 and 12. Further details will be announced.

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## PHYS3691 Physics in Society 3

Physics in Society	PinS	Prof Lancaster
Physics in Society Project	P1–4	Prof Lancaster and others

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in yellow.

### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Lectures												
Wed	1000	Online	PinS	PinS	PinS	PinS	PinS	PinS	PinS	PinS	PinS	-
Thu	0900	Online	PinS	PinS	PinS	PinS	PinS	PinS	PinS	PinS	PinS	-
Project Tutorials <sup>1</sup>												
Wed	1000	various	-	-	-	-	-	-	-	-	-	P1
Wed	1200	various	-	-	-	-	-	-	-	-	-	P2
Thu	0900	various	-	-	-	-	-	-	-	-	-	P3
Fri	1700	various	-	-	-	-	-	-	-	-	-	P4

<sup>1</sup> Project: The allocation of students to groups P1, P2, P3 and P4 will be announced towards the end of the Michaelmas Term. All students should attend the initial supervisory meeting in week 10. Then, in Epiphany Term, each student attends a total of three 1-hour tutorials (the same slot each time), in the weeks shown. The final meeting will take the form of individual interviews.

### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Project Tutorials												
Wed	1000	various	-	P1	P3	P1	P3	-	-	P1	P3	-
Thu	0900	various	-	P2	P4	P2	P4	-	-	P2	P4	-

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## PHYS3701 BSc Project

Introduction	Dr Potvliege
Project Supervisions	Supervisor

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in **yellow**.

### Michaelmas Term

Day	Time	Room	Teaching Week 1
Thu	1600	Online	<b>Introduction<sup>1</sup></b>

<sup>1</sup> All students taking module PHYS3701 should watch in full an introductory talk by Dr Potvliege online.

Each student is required to have one face-to-face supervisory meeting per fortnight, throughout Michaelmas and Epiphany Terms, starting in teaching week 2. Students and supervisors should arrange these meetings themselves, at mutually convenient times.

Each student is expected to spend at least 10 hours per week undertaking project work, including independent learning. There are no fixed slots for this: you are responsible for your own time-management.

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## PHYS3711 Condensed Matter Physics 3

Symmetry, Structure and Excitations	SSE	Dr Hunt
Broken Symmetry	BS	Dr Bristowe
Introduction to Soft Matter Physics	ISMP	Dr Kusumaatmaja

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in yellow.

### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Tue	1700	Online	SSE	SSE	SSE	SSE	SSE	SSE	BS	BS	BS	-
Fri	0900	Online	SSE	SSE	SSE	SSE	SSE	SSE	BS	BS	BS	-
Wkshp*	Various	Online	-	-	SSE	SSE	SSE	SSE	SSE	SSE	BS	-

\* Workshops take place in the weeks shown, as follows: Fridays 1100–1200,  
Wednesdays 1000–1100,  
and each student attends one of these classes (the same slot each time). The allocation of students to workshops is displayed separately.

### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Tue	1700	Online	BS	BS	BS	ISMP	ISMP	ISMP	ISMP	ISMP	ISMP	-
Fri	0900	Online	BS	BS	BS	ISMP	ISMP	ISMP	ISMP	ISMP	ISMP	-
Wkshp*	Various	Online	BS	BS	BS	BS	BS	ISMP	ISMP	ISMP	ISMP	ISMP

\* Workshops take place in the weeks shown, as follows: Fridays 1100–1200,  
Wednesdays 1000–1100,  
and each student attends one of these classes (the same slot each time). The allocation of students to workshops is displayed separately.

### Easter Term

Day	Time	Room	Teaching Week									
			21	22								
Tue	1700	Online	SSE	ISMP								
Fri	0900	Online	BS	-								

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**PHYS3721 Modern Atomic and Optical Physics 3**

Atomic Clocks	AC	Dr Carty
Fourier Optics	FO	Prof Hughes

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in yellow.

## Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Tue	1200	Online	AC	AC	AC	AC	AC	AC	AC	AC	AC	-
Fri	1700	Online	AC	AC	AC	AC	AC	AC	AC	AC	AC	-
Wkshp*	Various	Online	-	-	AC	AC	AC	AC	AC	AC	AC	-

\* Workshops take place in the weeks shown, as follows:

	Tuesdays 1000–1100,
	Fridays 1000–1100,

and each student attends one of these classes (the same slot each time). The allocation of students to workshops is displayed separately.

## Epiphany Term

[illegible]

\* Workshops take place in the weeks shown, as follows:

	Tuesdays 1000–1100,
	Fridays 1000–1100,

and each student attends one of these classes (the same slot each time). The allocation of students to workshops is displayed separately.

## Easter Term

Day	Time	Room	Teaching Week							
			21	22						
Tue	1200	Online	AC	-						
Fri	1700	Online	FO	-						



## PHYS4121 Atoms, Lasers and Qubits

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in yellow.

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Mon	1400	Online	Lasers	Lasers	Lasers	Lasers	Lasers	Lasers	Lasers	Lasers	Lasers	-
Thu	1400	Online	Lasers	Lasers	Lasers	Lasers	Lasers	Lasers	Lasers	Lasers	Lasers	-
Wkshp*	Various	Online	-	-	-	-	Lasers	Lasers	Lasers	Lasers	Lasers	Lasers

## Epiphany Term

\* Workshops take place in the weeks shown, as follows:

	Tuesdays 1300–1400,
	Fridays 1400–1500,

and each student attends one of these classes (the same slot each time). The allocation of students to workshops is displayed separately.

Day	Time	Room	Teaching Week							
			21	22						
Mon	1400	Online	-	Lasers						
Thu	1400	Online	-	QIC						

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## PHYS4141 Advanced Theoretical Physics

Quantum Optics	QO	Dr Kendon
Quantum Theory in Condensed Matter	QTC	Prof Gardiner

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in yellow.

### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Tue	0900	Online	QO	QO	QO	QO	QO	QO	QO	QO	QO	-
Thu	0900	Online	QO	QO	QO	QO	QO	QO	QO	QO	QO	-
Workshops												
Thu	1600	Online	-	-	-	-	QO	QO	QO	QO	QO	QO

### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Tue	0900	Online	QTC	QTC	QTC	QTC	QTC	QTC	QTC	QTC	QTC	-
Thu	0900	Online	QTC	QTC	QTC	QTC	QTC	QTC	QTC	QTC	QTC	-
Workshops												
Thu	1600	Online	-	-	-	QTC	QTC	QTC	QTC	-	QTC	QTC

### Easter Term

Day	Time	Room	Teaching Week									
			21	22								
Tue	0900	Online	-	QO								
Thu	0900	Online	-	QTC								

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## PHYS4151 Advanced Condensed Matter Physics

Standard Models of Condensed Matter Physics	SMC	Dr Terry
Low Dimensional Physics	LDP	Dr Dias
Order and Dynamics in Soft Matter and Biological Physics	ODSM	Prof Fielding and Dr Voitchovsky

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in **yellow**.

### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Mon	1500	Online	SMC	SMC	SMC	SMC	SMC	SMC	LDP	LDP	LDP	-
Thu	1500	Online	SMC	SMC	SMC	SMC	SMC	SMC	LDP	LDP	LDP	-
Workshops												
Wed	1000	Online	-	-	-	-	SMC	SMC	SMC	SMC	-	LDP

### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Mon	1500	Online	LDP	LDP	LDP	ODSM	ODSM	ODSM	ODSM	ODSM	ODSM	-
Thu	1500	Online	LDP	LDP	LDP	ODSM	ODSM	ODSM	ODSM	ODSM	ODSM	-
Workshops												
Wed	1000	Online	-	-	LDP	LDP	LDP	ODSM	ODSM	-	ODSM	ODSM

### Easter Term

Day	Time	Room	Teaching Week									
			21	22								
Mon	1500	Online	-	SMC								
Thu	1500	Online	-	LDS								
Fri	1600	Online	-	LDP								

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## PHYS4161 Advanced Astrophysics

Astronomical Techniques and Advanced Imaging	ATAI	Dr Wilson
Radiative Processes in Astrophysics	RPA	Prof Roberts

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in yellow.

### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Mon	1100	Online	ATAI	ATAI	ATAI	ATAI	ATAI	ATAI	ATAI	ATAI	ATAI	-
Wed	1100	Online	ATAI	ATAI	ATAI	ATAI	ATAI	ATAI	ATAI	ATAI	ATAI	-
Workshops												
Thu	1700	Online	-	-	-	-	ATAI	ATAI	ATAI	ATAI	ATAI	ATAI

### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Mon	1100	Online	RPA	RPA	RPA	RPA	RPA	RPA	RPA	RPA	RPA	-
Wed	1100	Online	RPA	RPA	RPA	RPA	RPA	RPA	RPA	RPA	RPA	-
Workshops												
Thu	1700	Online	-	-	-	RPA	RPA	RPA	RPA	-	RPA	RPA

### Easter Term

Day	Time	Room	Teaching Week									
			21	22								
Mon	1100	Online	-	ATAI								
Wed	1100	Online	-	RPA								

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## PHYS4181 Particle Theory

Relativistic Quantum Mechanics	RQM	Prof Krauss
Gauge Field Theories	GFT	Prof Khoze
Phenomenology	Phen	Dr Alonso

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in yellow.

### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Mon	1000	Online	RQM	RQM	RQM	RQM	RQM	RQM	GFT	GFT	GFT	-
Thu	1000	Online	RQM	RQM	RQM	RQM	RQM	RQM	GFT	GFT	GFT	-
Workshops												
Mon	1600	Online	-	-	-	-	RQM	RQM	RQM	RQM	-	GFT

### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Mon	1000	Online	GFT	GFT	GFT	Phen	Phen	Phen	Phen	Phen	Phen	-
Thu	1000	Online	GFT	GFT	GFT	Phen	Phen	Phen	Phen	Phen	Phen	-
Workshops												
Mon	1600	Online	-	-	GFT	GFT	GFT	Phen	Phen	-	Phen	Phen

### Easter Term

Day	Time	Room	Teaching Week									
			21	22								
Mon	1000	Online	-	RQM								
Thu	1000	Online	-	GFT								
Thu	1600	Online	-	Phen								

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## PHYS4201 Theoretical Astrophysics

Cosmic Structure Formation	CSF	Prof Lacey
General Relativity	GR	Prof Bower

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in yellow.

### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Mon	1200	Online	CSF	CSF	CSF	CSF	CSF	CSF	CSF	CSF	CSF	-
Thu	1200	Online	CSF	CSF	CSF	CSF	CSF	CSF	CSF	CSF	CSF	-
Workshops												
Fri	1600	Online	-	-	-	-	CSF	CSF	CSF	CSF	CSF	CSF

### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Mon	1200	Online	GR	GR	GR	GR	GR	GR	GR	GR	GR	-
Thu	1200	Online	GR	GR	GR	GR	GR	GR	GR	GR	GR	-
Workshops												
Fri	1600	Online	-	-	-	GR	GR	GR	GR	-	GR	GR

### Easter Term

Day	Time	Room	Teaching Week									
			21	22								
Mon	1200	Online	-	CSF								
Thu	1200	Online	-	GR								

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## PHYS4213 Project

Introduction	Prof Lancaster
Employability	Mr Fox
Safety	Mr McCallum
Project Supervisions	Supervisor

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in **yellow**.

### Michaelmas Term

Day	Time	Room	Teaching Week 1
Briefings			
Tue	1600	Online	<b>Introduction<sup>1</sup></b>
Wed	1000	Online	Employability <sup>2</sup>
Thu	1600–1800	CG93	Safety <sup>3</sup>
Fri	1400–1600	Ph30	Laser Safety <sup>4</sup>

<sup>1</sup> All students taking module PHYS4213 should watch in full an introductory talk by the Level 4 Course Director online.

<sup>2</sup> All students taking module PHYS4213 should watch in full an Employability and Skills talk online.

<sup>3</sup> Students who are taking experimental projects *must* attend a Safety briefing on Thursday 8 October from 1600 to 1800, in CG93.

<sup>4</sup> In addition, students who are taking experimental projects involving lasers *must* attend a Laser Safety briefing on Friday 9 October from 1400 to 1600 in room Ph30.

Each student is expected to spend at least 16 hours per week undertaking project work. You are responsible for your own time-management. You will have one 1-hour meeting per week with your supervisor, by mutual arrangement.

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## PHYS4231 Planets and Cosmology 4

Cosmology part 1	Cos1	Dr Wilman
Cosmology part 2	Cos2	Prof Li
Planetary Systems	Planet	Dr Eke

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in yellow.

### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Mon	1700	Online	Cos1	Cos1	Cos1	Cos1	Cos1	Cos2	Cos2	Cos2	Cos2	-
Wed	0900	Online	Cos1	Cos1	Cos1	Cos1	Cos2	Cos2	Cos2	Cos2	Cos2	-
Wkshp*	Various	Online	-	-	Cos1	Cos1	Cos1	Cos1	Cos2	Cos2	Cos2	-

\* Workshops take place in the weeks shown, as follows:                      Tuesdays 1200–1300,  
   Thursdays 1200–1300,  
and each student attends one of these classes (the same slot each time). The allocation of students to workshops is displayed separately.

### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Mon	1700	Online	Planet	Planet	Planet	Planet	Planet	Planet	Planet	Planet	Planet	-
Wed	0900	Online	Planet	Planet	Planet	Planet	Planet	Planet	Planet	Planet	Planet	-
Wkshp*	Various	Online	Cos2	Planet	Planet	Planet	Planet	Planet	Planet	Planet	Planet	Planet

\* Workshops take place in the weeks shown, as follows:                      Tuesdays 1200–1300,  
   Thursdays 1200–1300,  
and each student attends one of these classes (the same slot each time). The allocation of students to workshops is displayed separately.

### Easter Term

Day	Time	Room	Teaching Week									
			21	22								
Mon	1700	Online	Cos2	-								
Wed	0900	Online	Planet	-								

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## PHYS4241 Theoretical Physics 4

Relativistic Electrodynamics	RED	Dr Andersen
Quantum Theory 3	QT3	Prof Richardson

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in yellow.

### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Wed	1200	Online	RED	RED	RED	RED	RED	RED	RED	RED	RED	-
Thu	1300	Online	RED	RED	RED	RED	RED	RED	RED	RED	RED	-
Wkshp*	Various	Online	-	-	RED	RED	RED	RED	RED	RED	RED	-

\* Workshops take place in the weeks shown, as follows: Mondays 1200–1300,  
Fridays 1200–1300,  
and each student attends one of these classes (the same slot each time). The allocation of students to workshops is displayed separately.

### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Wed	1200	Online	QT3	QT3	QT3	QT3	QT3	QT3	QT3	QT3	QT3	-
Thu	1300	Online	QT3	QT3	QT3	QT3	QT3	QT3	QT3	QT3	QT3	-
Wkshp*	Various	Online	RED	QT3	QT3	QT3	QT3	QT3	QT3	QT3	QT3	QT3

\* Workshops take place in the weeks shown, as follows: Mondays 1200–1300,  
Fridays 1200–1300,  
and each student attends one of these classes (the same slot each time). The allocation of students to workshops is displayed separately.

### Easter Term

Day	Time	Room	Teaching Week									
			21	22								
Wed	1200	Online	RED	-								
Thu	1300	Online	QT3	-								

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## PHYS4261 Foundations of Physics 4B

Statistical Physics	SP	Prof Clark
Condensed Matter Physics part 1	CMP1	Dr Mendis
Condensed Matter Physics part 2	CMP2	Dr Mendis

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in **yellow**.

### Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Mon	1300	Online	SP	SP	SP	SP	SP	SP	SP	SP	SP	-
Wed	1100	Online	SP	SP	SP	SP	SP	SP	SP	SP	SP	-
Thu	1700	Online	-	-	-	-	-	-	-	-	-	-
Wkshp*	Various	TLC123	-	-	SP	SP	SP	SP	SP	SP	SP	-

\* Workshops take place in the weeks shown, as follows:

Mondays 1000–1100,  
Tuesdays 1700–1800,  
Thursdays 1000–1100,  
Thursdays 1600–1700,

and each student attends one of these classes (the same slot each time). The allocation of students to workshops is displayed separately. To ensure social distancing, each student will attend in person *once* every three weeks and online in the other weeks.

### Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Mon	1300	Online	-	-	CMP1	CMP1	CMP1	CMP2	CMP2	CMP2	CMP2	-
Wed	1100	Online	CMP1	CMP1	CMP1	CMP1	CMP1	CMP2	CMP2	CMP2	CMP2	-
Thu	1700	Online	CMP1	CMP1	CMP1	CMP1	CMP2	CMP2	CMP2	CMP2	-	-
Wkshp*	Various	TLC123	CMP1	CMP1	CMP1	CMP1	CMP1	CMP2	CMP2	CMP2	CMP2	CMP2

\* Workshops take place in the weeks shown, as follows:

Mondays 1000–1100,  
Tuesdays 1700–1800,  
Thursdays 1000–1100,  
Thursdays 1600–1700,

and each student attends one of these classes (the same slot each time). The allocation of students to workshops is displayed separately. To ensure social distancing, each student will attend in person *once* every three weeks and online in the other weeks.

### Easter Term

Day	Time	Room	Teaching Week									
			21	22								
Mon	1300	Online	SP	-								
Wed	1100	Online	CMP1	-								
Thu	1700	Online	CMP2	-								

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Symmetry, Structure and Excitations	SSE	Dr Hunt
Broken Symmetry	BS	Dr Bristowe
Introduction to Soft Matter Physics	ISMP	Dr Kusumaatmaja

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in yellow.

## Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Tue	1700	Online	SSE	SSE	SSE	SSE	SSE	SSE	BS	BS	BS	-
Fri	0900	Online	SSE	SSE	SSE	SSE	SSE	SSE	BS	BS	BS	-
Wkshp*	Various	Online	-	-	SSE	SSE	SSE	SSE	SSE	SSE	BS	-

\* Workshops take place in the weeks shown, as follows:

Fridays 1100–1200,

Wednesdays 1000–1100,

and each student attends one of these classes (the same slot each time). The allocation of students to workshops is displayed separately.

## Epiphany Term

Day	Time	Room	Teaching Week									
			11	12	13	14	15	16	17	18	19	20
Tue	1700	Online	BS	BS	BS	ISMP	ISMP	ISMP	ISMP	ISMP	ISMP	-
Fri	0900	Online	BS	BS	BS	ISMP	ISMP	ISMP	ISMP	ISMP	ISMP	-
Wkshp*	Various	Online	BS	BS	BS	BS	BS	ISMP	ISMP	ISMP	ISMP	ISMP

\* Workshops take place in the weeks shown, as follows:

Fridays 1100–1200,

Wednesdays 1000–1100,

and each student attends one of these classes (the same slot each time). The allocation of students to workshops is displayed separately.

## Easter Term

Day	Time	Room	Teaching Week							
			21	22						
Tue	1700	Online	SSE	ISMP						
Fri	0900	Online	BS	-						

Atomic Clocks	AC	Dr Carty
Fourier Optics	FO	Prof Hughes

Lectures will be delivered asynchronously. Lecture videos will normally become available online one week before the notional scheduled slot. Slots to be used as synchronous online office hours are highlighted in yellow.

## Michaelmas Term

Day	Time	Room	Teaching Week									
			1	2	3	4	5	6	7	8	9	10
Tue	1200	Online	AC	AC	AC	AC	AC	AC	AC	AC	AC	-
Fri	1700	Online	AC	AC	AC	AC	AC	AC	AC	AC	AC	-
Wkshp*	Various	Online	-	-	AC	AC	AC	AC	AC	AC	AC	-

\* Workshops take place in the weeks shown, as follows:

	Tuesdays 1000–1100,
	Fridays 1000–1100,

and each student attends one of these classes (the same slot each time). The allocation of students to workshops is displayed separately.

## Epiphany Term

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\* Workshops take place in the weeks shown, as follows:

	Tuesdays 1000–1100,
	Fridays 1000–1100,

and each student attends one of these classes (the same slot each time). The allocation of students to workshops is displayed separately.

## Easter Term

Day	Time	Room	Teaching Week							
			21	22						
Tue	1200	Online	AC	-						
Fri	1700	Online	FO	-						