

## Past Papers

# 2023



NATURAL SCIENCES TRIPOS: Part III Physics  
MASTER OF ADVANCED STUDY IN PHYSICS

NST3PHY  
MAPY

19 January 2023, 10.00-12.00

MAJOR TOPICS  
Paper 1/TQM (Theories of Quantum Matter)

Answer **two** questions only.  $h = 1$  *throughout this paper*.

The approximate number of marks allocated to each part of a question is indicated in the right-hand margin where appropriate.

The paper contains 4 sides including this one and is accompanied by a book giving values of constants and containing mathematical formulae which you may quote without proof.

You should use a **separate Answer Book** for each question.

STATIONERY REQUIREMENTS

linear graph paper  
Rough workpad

SPECIAL REQUIREMENTS

Mathematical Formulae Handbook  
Approved calculator allowed

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You may not start to read the questions printed on the subsequent pages of this question paper until instructed that you may do so by the Invigilator.

V8.4

A

# 2022



NATURAL SCIENCES TRIPOS: Part III Physics  
MASTER OF ADVANCED STUDY IN PHYSICS

NST3PHY  
MAPY

20 January 2022, 10.00-12.00

MAJOR TOPICS  
Paper 1/TQM (Theories of Quantum Matter)

Answer **two** questions only.  $h = 1$  *throughout this paper*.

The approximate number of marks allocated to each part of a question is indicated in the right-hand margin where appropriate.

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STATIONERY REQUIREMENTS

linear graph paper  
Rough workpad

SPECIAL REQUIREMENTS

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# 2021



NATURAL SCIENCES TRIPOS: Part III Physics  
MASTER OF ADVANCED STUDY IN PHYSICS

NST3PHY  
MAPY

Thursday 21st January 2021, 10:00-12:00

MAJOR TOPICS  
Paper 1/TQM (Theories of Quantum Matter)

Answer **two** questions only.  $h = 1$  *throughout this paper*.

The approximate number of marks allocated to each part of a question is indicated in the right-hand margin where appropriate.

The paper contains 4 sides including this one and is accompanied by a book giving values of constants and containing mathematical formulae which you may quote without proof.

You should use a **separate Answer Book** for each question.

STATIONERY REQUIREMENTS

linear graph paper  
Rough workpad

SPECIAL REQUIREMENTS

Mathematical Formulae Handbook  
Approved calculator allowed

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# 2020



NATURAL SCIENCES TRIPOS: Part III Physics  
MASTER OF ADVANCED STUDY IN PHYSICS

NST3PHY  
MAPY

January 2020

## MAJOR TOPICS

Paper 1/TQM (Theories of Quantum Matter)

Answer **two** questions only.  $h = 1$  *throughout this paper*.

The approximate number of marks allocated to each part of a question is indicated in the right-hand margin where appropriate.

The paper contains 29 sides including this one and is accompanied by a book giving values of constants and containing mathematical formulae which you may quote without proof.

You should use a **separate Answer Book** for each question.

## STATIONERY REQUIREMENTS

2 × 20-page answer books  
Rough workpad

## SPECIAL REQUIREMENTS

Mathematical formulae handbook  
Approved calculator allowed

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Draft: 25th January 2023

# 2019



NATURAL SCIENCES TRIPOS: Part III Physics  
MASTER OF ADVANCED STUDY IN PHYSICS

NST3PHY  
MAPY

Wednesday 16th January 2019      12.00 to 14.00

MAJOR TOPICS  
Paper 1/TQM (Theories of Quantum Matter)

Answer **two** questions only.  $h = 1$  *throughout this paper*.

The approximate number of marks allocated to each part of a question is indicated in the right-hand margin where appropriate.

The paper contains 11 sides including this one and is accompanied by a book giving values of constants and containing mathematical formulae which you may quote without proof.

You should use a **separate Answer Book** for each question.

STATIONERY REQUIREMENTS

2 × 20-page answer books  
Rough workpad

SPECIAL REQUIREMENTS

Mathematical formulae handbook  
Approved calculator allowed

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Draft: 9th November 2020

# 2018



NATURAL SCIENCES TRIPOS: Part III Physics  
MASTER OF ADVANCED STUDY IN PHYSICS

NST3PHY  
MAPY

Wednesday 17 January 2018 12.00 to 14.00

## MAJOR TOPICS

Paper 1/TQM (Theories of Quantum Matter)

Answer **two** questions only.  $\hbar = 1$  *throughout this paper*.

*The approximate number of marks allocated to each part of a question is indicated in the right-hand margin where appropriate.*

*The paper contains 10 sides including this one and is accompanied by a book giving values of constants and containing mathematical formulae which you may quote without proof.*

*You should use a **separate Answer Book** for each question.*

## STATIONERY REQUIREMENTS

2 × 20-page answer books  
Rough workpad

## SPECIAL REQUIREMENTS

Mathematical formulae handbook  
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Draft: 11th June 2018

# 2017



NATURAL SCIENCES TRIPOS: Part III Physics  
MASTER OF ADVANCED STUDY IN PHYSICS

NST3PHY  
MAPY

Wednesday 18 January 2017 12.00 to 14.00

## MAJOR TOPICS

Paper 1/TQM (Theories of Quantum Matter)

Answer **two** questions only. It = 1 *throughout this paper*.

The approximate number of marks allocated to each part of a question is indicated in the right-hand margin where appropriate.

The paper contains 11 sides including this one and is accompanied by a book giving values of constants and containing mathematical formulae which you may quote without proof.

You should use a **separate Answer Book** for each question.

## STATIONERY REQUIREMENTS

2 × 20-page answer books  
Rough workpad

## SPECIAL REQUIREMENTS

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Draft: 30th January 2017