

Summer Pre-Physics PhD Math Enrichment Program (2023)

Report of Contributions

Contribution ID: 1

Type: **not specified**

Introduction

Monday 10 July 2023 09:30 (1h 15m)

Overview / goals from Chris P
Welcome video from Jim Gates
Participant introductions
Participant goals

Presenter: PALMER, Chris (University of Maryland (US))

Session Classification: Day 1

Contribution ID: 2

Type: **not specified**

Calculus Concept Inventory

Monday 10 July 2023 10:50 (30 minutes)

Session Classification: Day 1

Contribution ID: 3

Type: **not specified**

Geometry and Trig

Monday 10 July 2023 11:20 (40 minutes)

Law of cosines, sines

Using vectors

Session Classification: Day 1

Contribution ID: 4

Type: **not specified**

Lunch

Monday 10 July 2023 12:00 (1 hour)

Session Classification: Day 1

Contribution ID: 5

Type: **not specified**

Content: TBD

Monday 10 July 2023 13:00 (2h 20m)

Review CCI problems as needed

Tutorial on 1st and 2nd derivatives (if needed)

Selected exercise on vector analysis; Arfken 1.2-1.5 (if time allows)

Session Classification: Day 1

Contribution ID: 6

Type: **not specified**

STEM Library Tour

Monday 10 July 2023 15:30 (30 minutes)

Session Classification: Day 1

Contribution ID: 7

Type: **not specified**

Campus Tour

Monday 10 July 2023 16:00 (1 hour)

Session Classification: Day 1

Contribution ID: 8

Type: **not specified**

Day off for moving dorms

Thursday 13 July 2023 08:00 (12 hours)

Contribution ID: 9

Type: **not specified**

Morning

Tuesday 11 July 2023 09:30 (2h 30m)

Session Classification: Problem Session

Contribution ID: **10**

Type: **not specified**

Material up to day 3

Wednesday 12 July 2023 16:30 (1 minute)

Presenter: PALMER, Chris (University of Maryland (US))

Session Classification: Problem Session

Contribution ID: **11**

Type: **not specified**

Slides up to this today

Tuesday 18 July 2023 16:00 (5 minutes)

Presenter: PALMER, Chris (University of Maryland (US))

Session Classification: Problem Session

Contribution ID: 12

Type: **not specified**

Today's problems

Wednesday 19 July 2023 17:00 (1 minute)

Presenter: PALMER, Chris (University of Maryland (US))

Session Classification: Problem Session

Contribution ID: 13

Type: **not specified**

Gauss' Law Problems

Thursday 20 July 2023 09:30 (1h 20m)

Session Classification: Problem Session

Contribution ID: **14**

Type: **not specified**

Break

Session Classification: Problem Session

Contribution ID: 15

Type: **not specified**

Gauss' Law Problems

Thursday 20 July 2023 11:05 (1h 25m)

Session Classification: Problem Session

Contribution ID: **16**

Type: **not specified**

Lunch

Session Classification: Problem Session

Contribution ID: 17

Type: **not specified**

Stokes' Theorem Overview and Practice

Thursday 20 July 2023 13:40 (1h 10m)

Session Classification: Problem Session

Contribution ID: **18**

Type: **not specified**

Stokes' Theorem Problems

Thursday 20 July 2023 15:05 (1h 10m)

Session Classification: Problem Session

Contribution ID: **19**

Type: **not specified**

Gauss' Law - Infinite Plane

Friday 21 July 2023 09:30 (1h 30m)

Session Classification: Problem Session

Contribution ID: 20

Type: **not specified**

Gauss' Law - Infinite line of charge

Friday 21 July 2023 11:10 (1h 20m)

Presenter: PALMER, Chris (University of Maryland (US))

Session Classification: Problem Session

Contribution ID: **21**

Type: **not specified**

Morning Session

Monday 24 July 2023 09:30 (1h 10m)

Start Stokes' theorem examples

Presenters: PALMER, Chris (University of Maryland (US)); Prof. GATES, Jim (University of Maryland - College Park)

Session Classification: Problem Session

Contribution ID: 22

Type: **not specified**

Late Morning Session

Monday 24 July 2023 10:50 (1h 30m)

Continue Stokes' examples

Session Classification: Problem Session

Contribution ID: 23

Type: **not specified**

Afternoon Session

Monday 24 July 2023 13:30 (1h 30m)

Continue Stokes' theorem

Presenters: PALMER, Chris (University of Maryland (US)); Prof. GATES, Jim (University of Maryland - College Park)

Session Classification: Problem Session

Contribution ID: 24

Type: **not specified**

Late Afternoon Session

Monday 24 July 2023 15:15 (1h 45m)

Finish Stokes and/or start ODEs

Presenters: PALMER, Chris (University of Maryland (US)); Prof. GATES, Jim (University of Maryland - College Park)

Session Classification: Problem Session

Contribution ID: 26

Type: **not specified**

Morning Session

Presenters: PALMER, Chris (University of Maryland (US)); Prof. GATES, Jim (University of Maryland - College Park)

Session Classification: Problem Session Template

Contribution ID: 27

Type: **not specified**

Late Morning Session

Continue Stokes' examples

Session Classification: Problem Session Template

Contribution ID: 28

Type: **not specified**

Afternoon Session

Continue Stokes' theorem

Presenters: PALMER, Chris (University of Maryland (US)); Prof. GATES, Jim (University of Maryland - College Park)

Session Classification: Problem Session Template

Contribution ID: 29

Type: **not specified**

Late Afternoon Session

Finish Stokes and/or start ODEs

Presenters: PALMER, Chris (University of Maryland (US)); Prof. GATES, Jim (University of Maryland - College Park)

Session Classification: Problem Session Template