

## **Session Program**

**3-4 Aug 2022**

# **SNEWS 2022 Collaboration Meeting & Hackaton**

## ***Collaboration Meeting***

Purdue Physics, Room 223

Purdue University Physics Dept, 2nd floor. Some hybrid meetings via the usual zoom channel <https://zoom.us/j/7654943048> see email or slack for the password

# Tuesday 2 August

09:00

## Collaboration Meeting: Welcome & Modelling

**Session** |

**Location:** Purdue Physics, Room 223, Department of Physics & Astronomy, Purdue University, 525 Northwestern Avenue, West Lafayette, IN 47907. |

**Conveners:** Rafael Lang, Alec Thomas Habig

09:00–09:15

### Welcome Address

**Speaker**

Rafael Lang

09:15–09:45

### Core-Collapse Supernova: the role of equation of state and the accretion of Si/O interface

**Speaker**

Mr Luca Boccioli

09:45–10:15

### Core-Collapse Supernovae : From neutrino-driven 1D explosions to light curves and spectra

**Speaker**

Dr Sanjana Curtis

10:30

11:00

## Collaboration Meeting: Pre-supernova & Detector Response

**Session** |

**Location:** Purdue Physics, Room 223, Department of Physics & Astronomy, Purdue University, 525 Northwestern Avenue, West Lafayette, IN 47907. |

**Convener:** Dr Jost Migenda

11:00–11:30

### Presupernova neutrinos: theory overview

**Speakers**

Cecilia Lunardini, Cecilia Lunardini

11:30–11:45

### Presupernova neutrinos: experiments and discussion

**Speakers**

Andrey Sheshukov, Mr Andrey Sheshukov

11:45–11:50

### TG3 Introduction

**Speakers**

Dr Jost Migenda, Dr Marta Colomer, Marta Colomer

11:50–12:05

### SNOWGLOBES v1.3

**Speakers**

Sebastian Torres-Lara, Sebastian Torres-Lara

12:05–12:20

### SNtools and generator comparison in SNO+

**Speakers**

Sammy Valder, Dr Sammy Valder

12:20-12:30

**Inelastic charged current interaction of SN neutrinos in two-phase liquid xenon dark matter detectors****Speaker**

Sayan Ghosh

12:30

16:30

**Collaboration Meeting: Detector Response****Session** |**Location:** Purdue Physics, Room 223, Purdue University Physics Dept, 2nd floor. Some hybrid meetings via the usual zoom channel <https://zoom.us/j/7654943048> see email or slack for the password |**Conveners:** marta colomer, Marta Colomer, Dr Jost Migenda

16:30-16:40

**Reports from Breakouts****Speaker**

Rafael Lang

16:40-16:55

**SNEWPY: Overview****Speaker**

Dr Jost Migenda

16:55-17:10

**SNEWPY: Advanced Flavor Transformations****Speaker**

James Kneller

17:10-17:25

**SNEWPY: Simple Rate calculation****Speakers**

Sonia El Hedri, Prof. Sonia El Hedri

17:25-17:40

**EstrellaNueva****Speaker**

Prof. Eric Vázquez Jáuregui

18:00

## Wednesday 3 August

09:00

### Collaboration Meeting: Implementation & Triangulation

**Session** |

**Location:** Purdue Physics, Room 223, Purdue University Physics Dept, 2nd floor. Some hybrid meetings via the usual zoom channel <https://zoom.us/j/7654943048> see email or slack for the password |

**Convener:** Jeffrey Tseng

09:00–09:20

#### SNEWS Publishing Tools & Coincidence System

**Speakers**

Melih Kara, Sebastian Torres-Lara

09:20–09:25

#### SNAX: A supernova tool for XENONnT

**Speaker**

Melih Kara

09:25–09:40

#### CEvNS detection and SNEWS implementation in XENONnT

**Speaker**

Amanda Baxter

09:40–10:00

#### Supernova distance and time difference calculations

**Speakers**

Dr Marta Colomer, marta colomer

10:00–10:15

#### Determining $t_0$

**Speaker**

Remington Hill

10:15–10:30

#### DUNE pointing

**Speaker**

Mr Joshua Queen

10:30

11:00

### Collaboration Meeting: Triangulation & Fire Drills

**Session** |

**Location:** Purdue Physics, Room 223, Purdue University Physics Dept, 2nd floor. Some hybrid meetings via the usual zoom channel <https://zoom.us/j/7654943048> see email or slack for the password

11:00–11:15

#### Mass hierarchy and triangulation

**Speakers**

Vedran Brdar, Vedran Brdar, Dr Vedran Brdar

11:15–11:25

#### Making Sky-maps from time series comparisons

**Speaker**

Cal Hewitt

11:25–11:40

#### Towards supernova readiness and discussion

**Speaker**

Jeffrey Tseng

11:40–12:00

#### Plans for testing the system until follow-up

12:30	<p><b>Speaker</b> Lindley Winslow</p>
16:30	<p><b>Collaboration Meeting: Multi-messenger &amp; Outreach</b>  <b>Session</b>    <b>Location:</b> Purdue Physics, Room 223, Purdue University Physics Dept, 2nd floor. Some hybrid meetings via the usual zoom channel <a href="https://zoom.us/j/7654943048">https://zoom.us/j/7654943048</a> see email or slack for the password    <b>Conveners:</b> Dr Barry Pointon, Rafael Lang</p>
	<p>16:30–16:40 <b>Reports from Breakouts</b></p> <p><b>Speaker</b> Rafael Lang</p>
	<p>16:40–16:50 <b>Supernova Candidate List</b></p> <p><b>Speaker</b> Sarah Healy</p>
	<p>16:50–17:10 <b>Automating follow-up to a SNEWS alert</b></p> <p><b>Speaker</b> Dan Milisavljevic</p>
	<p>17:10–17:25 <b>Supernova App demonstration</b></p> <p><b>Speaker</b> Peter B Kramer</p>
18:00	<p>17:25–17:40 <b>Progress in SNEWS Outreach</b></p> <p><b>Speaker</b> Dr Barry Pointon</p>