

～中性子星の観測と理論～研  
究活性化ワークショップ **2023**

## **Report of Contributions**

Contribution ID: 1

Type: **not specified**

## **Pulsar Observation with the SKA**

*Wednesday, 6 September 2023 13:10 (40 minutes)*

40 min, Invited

**Primary author:** 信一郎, 浅山

**Presenter:** 信一郎, 浅山

**Session Classification:** Session 1

Contribution ID: 2

Type: **not specified**

# パルサータイミングアレイによる重力波観測とその最新結果

*Wednesday, 6 September 2023 13:50 (40 minutes)*

40 min, Invited

**Primary author:** 晋之介, 久野

**Presenter:** 晋之介, 久野

**Session Classification:** Session 1

Contribution ID: 3

Type: **not specified**

## 電波・可視光同時観測によるカニパルサーの巨大電波 パルス放射機構解明に向けて

*Wednesday, 6 September 2023 14:30 (20 minutes)*

20 min

**Primary author:** 和明, 橋山

**Presenter:** 和明, 橋山

**Session Classification:** Session 1

Contribution ID: 4

Type: **not specified**

## 弱い力のパリティ対称性の破れと超新星・中性子星の物理

*Wednesday, 6 September 2023 15:15 (40 minutes)*

40 min, Invited

**Primary author:** 直希, 山本

**Presenter:** 直希, 山本

**Session Classification:** Session 2

Contribution ID: 5

Type: **not specified**

中性子星の磁場はどうやって決まっているのか？をク  
ラスト形成時間から考えてみる

*Wednesday, 6 September 2023 15:55 (25 minutes)*

25 min

**Primary author:** 雄大, 諏訪

**Presenter:** 雄大, 諏訪

**Session Classification:** Session 2

Contribution ID: 6

Type: **not specified**

## 超新星爆発における乱流 $\alpha$ 効果により増幅された磁場の果たす役割

*Wednesday, 6 September 2023 16:20 (25 minutes)*

25 min

**Primary author:** 仁, 松本

**Presenter:** 仁, 松本

**Session Classification:** Session 2

Contribution ID: 7

Type: **not specified**

## 大質量星の3次元重力崩壊計算が示す中性子星の性質

*Wednesday, 6 September 2023 16:45 (25 minutes)*

25 min

**Primary author:** 航, 中村

**Presenter:** 航, 中村

**Session Classification:** Session 2



Contribution ID: 8

Type: **not specified**

# スーパーチャンドラセカール質量の白色矮星の重力崩壊

*Wednesday, 6 September 2023 17:10 (25 minutes)*

25 min

**Primary author:** 正光, 森

**Presenter:** 正光, 森

**Session Classification:** Session 2

Contribution ID: 9

Type: **not specified**

超新星 **SN1987A** からのニュートリノ信号再解析による  
中性子星 **NS1987A** のパラメータ推定

*Wednesday, 6 September 2023 17:35 (25 minutes)*

25 min

**Primary author:** 了, 原田

**Presenter:** 了, 原田

**Session Classification:** Session 2

Contribution ID: **10**

Type: **not specified**

# 格子シミュレーションによる **QCD** 型理論の超流動相 での音速

*Thursday, 7 September 2023 09:30 (25 minutes)*

25 min

**Primary author:** 悦子, 伊藤

**Presenter:** 悦子, 伊藤

**Session Classification:** Session 3

Contribution ID: 11

Type: **not specified**

## ハドロン有効理論を用いた音速ピーク構造の再現: 有限密度系 **2** カラーカイラル有効理論による平均場解析

*Thursday, 7 September 2023 09:55 (25 minutes)*

25 min

**Primary author:** 大輝, 末永

**Presenter:** 大輝, 末永

**Session Classification:** Session 3

Contribution ID: 12

Type: **not specified**

相対論的複素スカラー場の熱力学的性質に対する化学  
ポテンシャル勾配からの影響の解析

*Thursday, 7 September 2023 10:20 (20 minutes)*

20 min

**Primary author:** 大輝, 三浦

**Presenter:** 大輝, 三浦

**Session Classification:** Session 3

Contribution ID: 13

Type: **not specified**

## 重力波天文学で迫る状態方程式

*Thursday, 7 September 2023 11:05 (40 minutes)*

40 min, Invited

**Primary author:** 浩太郎, 久徳

**Presenter:** 浩太郎, 久徳

**Session Classification:** Session 4

Contribution ID: 14

Type: **not specified**

## Meson condensation in dense matter and implications for compact stars

*Thursday, 7 September 2023 11:45 (25 minutes)*

25 min

**Primary author:** 巧, 武藤

**Presenter:** 巧, 武藤

**Session Classification:** Session 4

Contribution ID: 15

Type: **not specified**

## **Composite octet baryons in a mean field description of nuclear and neutron star matter**

*Thursday, 7 September 2023 12:10 (20 minutes)*

20 min

**Primary author:** 凱人, 野呂

**Presenter:** 凱人, 野呂

**Session Classification:** Session 4



Contribution ID: 16

Type: **not specified**

## クラスト振動による **GRB 200415A** の質量半径の制限

*Thursday, 7 September 2023 12:30 (25 minutes)*

25 min

**Primary author:** 元, 祖谷

**Presenter:** 元, 祖谷

**Session Classification:** Session 4

Contribution ID: 17

Type: **not specified**

## IXPE 衛星による中性子星の X 線偏光観測

*Thursday, 7 September 2023 14:00 (40 minutes)*

40 min, Invited

**Primary author:** 徹, 玉川

**Presenter:** 徹, 玉川

**Session Classification:** Session 5

Contribution ID: **18**

Type: **not specified**

## 降着型 X 線パルサーの軟 X 線超過と低電離の鉄輝線

*Thursday, 7 September 2023 14:40 (15 minutes)*

15 min

**Primary author:** 悠太郎, 永井

**Presenter:** 悠太郎, 永井

**Session Classification:** Session 5

Contribution ID: 19

Type: **not specified**

## ULX パルサーの自転位相分解スペクトル解析による 超臨界降着流の構造の解明

*Thursday, 7 September 2023 14:55 (15 minutes)*

15 min

**Primary author:** 大貴, 三浦

**Presenter:** 大貴, 三浦

**Session Classification:** Session 5

Contribution ID: 20

Type: **not specified**

# 磁化中性子星への超臨界降着流の一般相対論的輻射磁気流体力学計算

*Thursday, 7 September 2023 15:10 (20 minutes)*

20 min

**Primary author:** 壮大, 井上

**Presenter:** 壮大, 井上

**Session Classification:** Session 5

Contribution ID: 21

Type: **not specified**

## **HEX-P** 衛星を用いた中性子星連星合体残骸の同定と **r-process** 核輝線検出の推定

*Thursday, 7 September 2023 15:30 (15 minutes)*

15 min

**Primary author:** 侑吾, 本上

**Presenter:** 侑吾, 本上

**Session Classification:** Session 5

Contribution ID: 22

Type: **not specified**

## **Superfluid and Finite-Temperature Extensions of Self-Consistent Band Theory for the Inner Crust of Neutron Stars**

*Thursday, 7 September 2023 16:10 (15 minutes)*

15 min

**Primary author:** 健太, 吉村

**Presenter:** 健太, 吉村

**Session Classification:** Session 6

Contribution ID: 23

Type: **not specified**

## 中性子星温度観測を通じた **WIMP** 暗黒物質探索

*Thursday, 7 September 2023 16:25 (25 minutes)*

25 min

**Primary author:** 夏海, 永田

**Presenter:** 夏海, 永田

**Session Classification:** Session 6



Contribution ID: 24

Type: **not specified**

## 中性子星の熱的進化とパルサーの回転進化

*Thursday, 7 September 2023 16:50 (25 minutes)*

25 min

**Primary author:** 常雄, 野田

**Presenter:** 常雄, 野田

**Session Classification:** Session 6

Contribution ID: 25

Type: **not specified**

## 中性子星 **NS1987A** の温度観測から何がわかるか？

*Thursday, 7 September 2023 17:15 (25 minutes)*

25 min

**Primary author:** 明, 土肥

**Presenter:** 明, 土肥

**Session Classification:** Session 6

Contribution ID: 26

Type: **not specified**

## 超広帯域電波観測で探る **PSR J1107-5907** の偏光状態

*Thursday, 7 September 2023 17:40 (2 minutes)*

2 min

**Primary author:** 智之介, 喜久永

**Presenter:** 智之介, 喜久永

**Session Classification:** Session 7 (Poster)

Contribution ID: 27

Type: **not specified**

## **X-ray studies of millisecond pulsars in Galactic field and Globular cluster**

*Thursday, 7 September 2023 17:42 (2 minutes)*

2 min

**Primary author:** 順平, 高田

**Presenter:** 順平, 高田

**Session Classification:** Session 7 (Poster)

Contribution ID: 28

Type: **not specified**

コンパクト天体の可視高速撮像システム **IMONY** の本  
格稼働へ

*Thursday, 7 September 2023 17:44 (2 minutes)*

2 min

**Primary author:** 健之, 中森

**Presenter:** 健之, 中森

**Session Classification:** Session 7 (Poster)

Contribution ID: 29

Type: **not specified**

## パルサー星雲におけるシンクロトロン放射偏光成分の モデル計算

*Thursday, 7 September 2023 17:46 (2 minutes)*

2 min

**Primary author:** 寛, 大野

**Presenter:** 寛, 大野

**Session Classification:** Session 7 (Poster)

Contribution ID: **30**

Type: **not specified**

## かにパルサーの巨大電波パルスの位相依存性

*Thursday, 7 September 2023 17:48 (2 minutes)*

2 min

**Primary author:** 湧輝, 柴田

**Presenter:** 湧輝, 柴田

**Session Classification:** Session 7 (Poster)

Contribution ID: 31

Type: **not specified**

## **A Comprehensive Analysis of the Gravitational Wave Events with the Stacked Hilbert-Huang Transform: From Compact Binary Coalescence to Supernova**

*Thursday, 7 September 2023 17:50 (2 minutes)*

2 min

**Primary author:** HU, Chin-Ping

**Presenter:** HU, Chin-Ping

**Session Classification:** Session 7 (Poster)



Contribution ID: 32

Type: **not specified**

## キューブサットX線衛星 **NinjaSat** が打ち上げ直前

*Thursday, 7 September 2023 17:52 (2 minutes)*

2 min

**Primary author:** 輝揚, 榎戸

**Presenter:** 輝揚, 榎戸

**Session Classification:** Session 7 (Poster)

Contribution ID: 33

Type: **not specified**

## **I-Love-Q for neutron stars and dark stars**

*Thursday, 7 September 2023 17:54 (2 minutes)*

2 min

**Primary author:** ZHANG, Kilar

**Presenter:** ZHANG, Kilar

**Session Classification:** Session 7 (Poster)

Contribution ID: 34

Type: **not specified**

## **Magnetars as an origin of fast radio bursts: New insights from SGR 1935+2154 2022 outburst**

*Friday, 8 September 2023 09:30 (25 minutes)*

25 min

**Primary author:** HU, Chin-Ping

**Presenter:** HU, Chin-Ping

**Session Classification:** Session 8 (in English)

Contribution ID: 35

Type: **not specified**

## **Spectrum and Radiative Acceleration of Expanding Pair Fireball**

*Friday, 8 September 2023 09:55 (25 minutes)*

25 min

**Primary author:** WADA, Tomoki

**Presenter:** WADA, Tomoki

**Session Classification:** Session 8 (in English)

Contribution ID: 36

Type: **not specified**

## **Fast radio bursts trigger aftershocks resembling earthquakes, but not solar flares**

*Friday, 8 September 2023 10:20 (25 minutes)*

25 min

**Primary author:** TOTANI, Tomonori

**Presenter:** TOTANI, Tomonori

**Session Classification:** Session 8 (in English)

Contribution ID: 37

Type: **not specified**

## **Recent advances in understanding pulsar emission mechanisms**

*Friday, 8 September 2023 11:10 (40 minutes)*

40 min, invited

**Primary author:** ANDREY TIMOKHIN

**Presenter:** ANDREY TIMOKHIN

**Session Classification:** Session 9 (in English)

Contribution ID: 38

Type: **not specified**

## **1D GRPIC Simulations of High-Energy Gamma Rays from BH Magnetospheres**

*Friday, 8 September 2023 11:50 (20 minutes)*

20 min

**Primary author:** KIN, Koki

**Presenter:** KIN, Koki

**Session Classification:** Session 9 (in English)

Contribution ID: 39

Type: **not specified**

## **Current Understandings of the Pulsar Magnetosphere, and a comment on Crab Nebula Polarization**

*Friday, 8 September 2023 12:10 (40 minutes)*

40 min, Invited

**Primary author:** SHIBATA, Shinpei

**Presenter:** SHIBATA, Shinpei

**Session Classification:** Session 9 (in English)



Contribution ID: 40

Type: **not specified**

## **Electric current circuit in pulsar magnetosphere**

*Friday, 8 September 2023 12:50 (25 minutes)*

25 min

**Primary author:** KISAKA, Shota

**Presenter:** KISAKA, Shota

**Session Classification:** Session 9 (in English)

Contribution ID: 41

Type: **not specified**

## **Evaluating the Influence of Light-Bending in the Timing Analysis of Soft X-ray Pulses from Magnetars**

*Friday, 8 September 2023 14:20 (15 minutes)*

15 min

**Primary author:** QU, Chushu

**Presenter:** QU, Chushu

**Session Classification:** Session 10 (in English)

Contribution ID: 42

Type: **not specified**

## **Evolution of Magnetic Fields of Magnetars Inferred from Observations**

*Friday, 8 September 2023 14:35 (25 minutes)*

25 min

**Primary author:** MAKISHIMA, Kazuo

**Presenter:** MAKISHIMA, Kazuo

**Session Classification:** Session 10 (in English)

Contribution ID: 43

Type: **not specified**

## **Magnetic fields in Magnetar and CCO**

*Friday, 8 September 2023 15:00 (25 minutes)*

25 min

**Primary author:** KOJIMA, Yasufumi

**Presenter:** KOJIMA, Yasufumi

**Session Classification:** Session 10 (in English)

Contribution ID: 44

Type: **not specified**

## **A Self-regulated Stochastic Acceleration Model of Pulsar Wind Nebulae**

*Friday, 8 September 2023 15:25 (25 minutes)*

25 min

**Primary author:** TANAKA, Shuta

**Presenter:** TANAKA, Shuta

**Session Classification:** Session 10 (in English)