

# Exploring Supernova Remnants and Pulsar Wind Nebulae in X-rays: before and after ASTRO-H

2010.Feb.18-19, ISAS/JAXA, Japan

## Program

Feb.18

10:00 - 10:25 Tadayuki Takahashi ASTRO-H overview

### Topic 1: Thermal emission from supernova remnants

10:25 - 10:50 Jack P. Hughes Thermal emission from young SNRs

10:50 - 11:15 Knox Long "Supernova Remnants - Recent Progress and Future Challenges"

11:15 - 11:40 Hiroyuki Uchida "Plasma Diagnostics of the Cygnus Loop"

11:40 - 12:05 Hiroya Yamaguchi "New Epoch of SNR Science from Suzaku to Astro-H:  
High-Resolution Spectroscopy of Recombination X-Rays"

12:05 - 12:30 Satoru Katsuda Thermal emission from SNRs

12:30 - 13:30 Lunch break

### Topic 2: Non-thermal processes on supernova remnants

13:30 - 13:55 Jelle Kaastra Thermal and non-thermal line diagnostics in SNRs

13:55 - 14:20 Felix Aharonian "Similarities and differences of particle shock acceleration  
and their radiation in supernova remnants and clusters of galaxies"

14:20 - 14:45 Luke Drury High acc. efficiency vs. thermal emission

14:45 - 15:10 Keiichi Maeda Supernovae and Supernova remnants

15:10 - 15:35 Aya Bamba "X-ray measurement of particle escape from SNR shocks"

15:35 - 15:55 Andrea Giuliani "W28: AGILE results in perspectives"

15:55 - 16:15 Coffee break

16:15 - 16:40 Stefano Gabici Molecular clouds and SNRs

16:40 - 17:05 Sabrina Casanova Particle escape from SNRs

### Topic 3: Pulsar wind nebulae

17:05 - 17:30 Koji Mori Vela and old PWNe

17:30 - 17:50 Alberto Pellizzoni "Vela X and PWNe revealed by AGILE"

19:00 - 21:00 Banquet (at restraint "Kazu")

Feb.19

10:00 - 10:25	Nobuyuki Kawai	Fermi pulsars
10:25 - 10:50	Kazuo Makishima	Magnetars
10:50 - 11:15	Okkie C. de Jager	Theory of PWNe
11:15 - 11:40	Dmitry Khangulyan	Theory of PWNe

**Topic 4: High-energy topics in other wavelength**

11:40 - 12:05	Yasunobu Uchiyama	"Fermi LAT Observations of Young Supernova Remnants"
12:05 - 12:30	Takaaki Tanaka	"Fermi-LAT results on middle-aged SNRs interacting with molecular clouds"

12:30 - 13:30 Lunch break

13:30 - 13:55	Emma de Oña Wilhelmi	H.E.S.S. studies for Galactic sources
13:55 - 14:20	Marco Tavani	"Evidence for cosmic ray acceleration in SNRs and PWNe modeling"
14:20 - 14:45	Pietro Ubertini	hard X-ray studies for SNRs and PWNe
14:45 - 15:10	Yasuo Fukui	Molecular clouds and SNRs
15:10 - 15:35	Rob Petre	Polarization

15:35 - 16:00 Coffee break

16:00 - 17:30 discussion

**Posters**

Yutaka Fujita	"Molecular Clouds as a Probe of Cosmic-Ray Acceleration in a Supernova Remnant"
Brent Nicholas	"Mopra ammonia studies of the dense gas towards the supernova remnant W28"
Yutaka Ohira	"Effects of neutral particles on SNR shocks"
Midori Ozawa	"Discovery of Strong Recombination X-rays from Supernova Remnants"
Shuta Tanaka	"A Spectral Evolution of Young TeV Pulsar Wind Nebulae"
Tsunehiko Kato	"Nonrelativistic collisionless shocks in weakly magnetized electron-ion plasmas: two-dimensional PIC simulation"
Naoko Furukawa	"Observations of jet- and arc-like molecular clouds toward HESS J1023-575 and Westerlund 2"
Hidetoshi Sano	"Molecular cloud toward the TeV gamma-ray supernova remnant RX J1713.7-3946"