

Star Formation 2015: From Clouds to Cores

June 29th (Mon) --- July 1st (Wed)

(25+5) invited (15+5) contributed talks (2) short talks (+ poster presentation)

June 29 (Mon).

09:30- Registration

09:55-10:00 Welcome

Chair: Shige Takakuwa (ASIAA)

Session I: Star Formation in Extra Galaxies

10:00-10:30 (25+5) John Silverman (Kavli IPMU)

A higher efficiency of converting gas to stars in high-redshift starburst galaxies with ALMA and PdBI

10:30-11:00 (25+5) Cinthya Herrera (NAOJ)

Stellar feedback from a massive Super Star Cluster in the Antennae merger

11:00-11:10 (10) **Break + Poster**

11:10-11:40 (25+5) Yoshimasa Watanabe (Univ. of Tokyo)

Chemical Composition of Molecular Gas from 1 kpc to 100 pc -scale in Nearby Galaxies

11:40-12:00 (15+5) Yusuke Fujimoto (Hokkaido Univ.)

Birthing star forming clouds in the grand design

12:00-13:10 (70) **Lunch**

Chair: Michiko Fujii (NAOJ)

13:10-13:40 (25+5) Akiko Kawamura (NAOJ)

The Magellanic System: An ideal laboratory for studies of star formation

13:40-14:10 (25+5) Toshikazu Onishi (Osaka Pref. University)

Star Formation in the Large Magellanic Cloud As Seen by ALMA: Tracing an Evolution from Molecular

Clouds to high-mass stars

Session II: Cloud Structure

14:10 – 14:40 (25+5) Erik Rosolowsky (Univ. of Alberta)

Designing Experiments that Compare Simulations and Observations of Star Formation

14:40-15:10 (25+5) Quang Nguyen Luong (NAOJ)

Connecting Local to Global star formation via Mini-starburst

15:10-15:30 (20) **Break + Poster**

Chair: Naomi Hirano (ASIAA)

15:30-16:00 (25+5) Kengo Tachihara (Nagoya Univ.)

Evolution of ISM from cold atomic gas to molecular cloud

16:00-16:30 (25+5) Kazuhito Dobashi (Tokyo Gakugei Univ.)

Origin of colliding filaments in the Cyg OB7 cloud and their effects on star formation

16:30-16:50 (15+5) Yasuo Doi (JAXA)

Large-scale ISM distribution traced by the AKARI FIR All-Sky Survey

16:50-17:10 (15+5) Kunihiko Tanaka (Keio Univ.)

A Candidate Site of Collision-triggered Star Formation in the Milky Way's Central Molecular Zone

17:10-17:30 (15+5) Frank Otto (Chinese Univ. of Hong Kong)

Velocity anisotropy in filamentary molecular clouds

17:30-17:50 (2 x 7+6) **Short talks** (1~7)

1. Hsi-An Pan (Hokkaido Univ.)

What is a Giant Molecular Cloud? Are Observers and Simulators Discussing the Same Star-forming Clouds?

2. Kazuhiro Shima (Hokkaido Univ.)

Star formation in cloud collisions with radiative feedback

3. Masato Kobayashi (Nagoya Univ.)

The Time Evolution of Giant Molecular Cloud Mass Function due to Cloud-Cloud Collisions

4. Chihomi Hara (Univ. of Tokyo)

CARMA+45m Orion Mapping Project

5. Mizuho Uchiyama (Univ. of Tokyo)

Observations of massive star forming regions in the long-MIR

6. Makito Abe (Univ. of Tsukuba)

Star cluster formation regulated by the interstellar radiation field

7. Ryohei Kawabe (NAOJ)

Large Submillimeter Telescope

June 30 (Tue)

Session III: High-mass star formation

Chair: Kohji Tomisaka (NAOJ)

9:30-10:00 (25+5) Takeshi Sakai (Univ.of Electro-Communications)

Deuterium Fractionation in Cluster-Forming Clumps

10:00-10:30 (25+5) Takashi Hosokawa (Univ. of Tokyo)

Formation of high-mass stars and their feedback in simulations

10:30-11:00 (25+5) Vivien Chen (National Tsing Hua Univ.)

Disk Accretion around Massive Protostars

11:00-11:10 (10) **Break + Poster**

11:10-11:40 (25+5) Asao Habe (Hokkaido Univ.)

Cloud Cloud Collision and Massive Star Formation

Session IV: Cluster Formation

11:40-12:00 (15+5) Michiko Fujii (NAOJ)

The origin of the variety of star clusters

12:00-13:10 (70) **Lunch**

Chair: Yashuhiro Hasegawa (NAOJ)

13:10-13:40 (25+5) Devendra Ojha (Tata Institute)

Feedback from massive stars on smaller scales and modes of triggered star formation in
molecular
clouds

13:40-14:10 (25+5) Patricio Sanhueza (NAOJ)

A Massive, Prestellar Clump hosting no High-Mass Prestellar Cores

14:10-14:40 (25+5) Tomomi Shimoikura (Tokyo Gakugei Univ.)

Geometry of dense clumps in the W40 HII region

14:40-15:10 (25+5) Aya Higuchi (Ibaragi Univ.)

Study of the initial condition of cluster formation: recent results from ALMA

15:10-15:30 (20) **Break + Poster**

Chair: Ryohei Kawabe (NAOJ)

15:30-16:00 (25+5) Tsuyoshi Inoue (NAOJ)

MHD simulations of massive star formation triggered by cloud collision

Session V: Magnetic Field

16:00-16:30 (25+5) Chin-Fei Lee (ASIAA)

Magnetic Field Structure in the Very Young Protostellar System HH 211

16:30-17:00 (25+5) Hua-Bai Li (Chinese Univ. of Hong Kong)

Molecular Cloud Fragmentation Channeled by Magnetic Fields

17:00-17:20 (15+5) Yumiko Oasa (Saitama Univ.)

The Initial Mass Functions at Low Masses: Is it Universal?

17:20-17:45 (2 x 7+7) **Short talks** (7~13)

1. Satoshi Ohashi (Univ. of Tokyo)

The chemical evolution in molecular cloud cores

2. Koji Sugitani (Nagoya City Univ.)

Near-infrared Polarimetric Observations of Infrared Dark Clouds

3. Reiko Imai (Nagoya City Univ.)

High-resolution near-infrared observations of a stellar aggregate associated with a bright rimmed cloud in W5.

4. Fumitaka Nakamura (NAOJ)

CCS Zeeman Observations toward TMC-1.

5. Kotomi Taniguchi (NAOJ)

Formation Mechanisms of HC5N as Studied by Carbon and Nitrogen Isotopic Fractionation

6. Masanobu Kunitomo (Nagoya Univ.)

Pre-main sequence evolution of low-mass stars: Effects of planet formation on stellar composition

7. Yuya Sakurai (Univ. of Tokyo)

Evolution of massive protostars and protostellar outflows in numerical simulations

8. Andrea Silvia (Tufts University)

SMA observations of the high-mass protostellar object IRAS18566+0408

9. Chi Yan Law (Chinese Univ. of Hong Kong)

Characterizing the cloud contraction threshold from column density probability density function

July 1 (Wed)

Chair: Koji Sugitani (Nagoya City Univ.)

09:30 – 10:00 (25+5) Ramprasad Rao (ASIAA/Hawaii)

Studying Magnetic Field Structures in Star Forming Regions

10:00-10:30 (25+5) Takayoshi Kusune (Nagoya City Univ.)

Magnetic Fields on Bright-Rimmed Clouds

10:30-10:40 (10) **Break + Poster**

10:40-11:00 (15+5) Kohji Tomisaka (NAOJ)

Magnetohydrostatic Equilibrium Structure and Mass of Filamentary Isothermal Cloud
Threaded by

Lateral Magnetic Field

11:00-11:20 (15+5) Kwok Sun Tang (Chinese Univ. of Hong Kong)

Understanding Polarization Hole

Session VI: Low mass Star Formation, Disks, cores

11:20-11:50 (25+5) Lee Mundy (Univ. of Maryland)

Highlights from the CLASSy: The Structure of Dense Gas in Areas of Star Formation

11:50-13:10 (80) **Lunch**

Chair: Kazuhito Dobashi (Tokyo Gakugei Univ.)

13:10-13:40 (25+5) Diego Mardones (Univ. of Chile)

Protostellar Outflows: lessons from HH46/47

13:40-14:10 (25+5) Shih-Ping Lai (National Tsing Hua Univ.)

Revealing the secrets of VLA1623A: an in-depth look into the earliest stage of disk formation

14:10-14:40 (25+5) Shige Takakuwa (ASIAA)

Protostellar Binary Systems in the L1551 Region

14:40-15:00 (20) **Break + Poster**

15:00-15:30 (25+5) Naomi Hirano (ASIAA)

Two extreme young objects in Barnard 1-b

15:30-16:00 (25+5) Yasuhiro Hasegawa (NAOJ)

Planet Formation: From Cores to Disks

16:00-16:20 (15+5) Kazuki Tokuda (Osaka Pref. Univ.)

ALMA Cycle 0/1 Observations of a High-density Core in Taurus: Dynamical Gas Interaction
at the

Possible Site of a Multiple Star Formation

16:20-16:40 (15+5) Kazuya Saigo (Osaka Prefecture Univ.)

Discovery of "First Core" Density Cloud Core in Ophiuchus Star Forming Region

List of 2min short talks + Poster Presentation

(1) Hsi-An Pan (Hokkaido Univ.)

What is a Giant Molecular Cloud? Are Observers and Simulators Discussing the Same Star-forming Clouds?

(2) Kazuhiro Shima (Hokkaido Univ.)

Star formation in cloud collisions with radiative feedback

(3) Masato Kobayashi (Nagoya Univ.)

The Time Evolution of Giant Molecular Cloud Mass Function due to Cloud-Cloud Collisions

(4) Chihomi Hara (Univ. of Tokyo)

CARMA+45m Orion Mapping Project

(5) Mizuho Uchiyama (NAOJ)

Observations of massive star forming regions in the long-MIR

(6) Makito Abe (Univ. of Tsukuba)

Star cluster formation regulated by the interstellar radiation field

(7) Ryohei Kawabe (NAOJ)

Large Submillimeter Telescope

(8) Satoshi Ohashi (Univ. of Tokyo)

The chemical evolution in molecular cloud cores

(9) Koji Sugitani (Nagoya City Univ.)

Near-infrared Polarimetric Observations of Infrared Dark Clouds

(10) Rieko Imai (Nagoya City Univ.)

High-resolution near-infrared observations of a stellar aggregate associated with a bright rimmed cloud in W5.

(11) Fumitaka Nakamura (NAOJ)

CCS Zeeman Observations toward TMC-1.

(12) Kotomi Taniguchi (NAOJ)

Formation Mechanisms of HC5N as Studied by Carbon and Nitrogen Isotopic Fractionation

(13) Masanobu Kunitomo (Nagoya Univ.)

Pre-main sequence evolution of low-mass stars: Effects of planet formation on stellar composition

(14) Yuya Sakurai (Univ. of Tokyo)

Evolution of massive protostars and protostellar outflows in numerical simulations

(15) Andrea Silvia (Tufts University)

SMA observations of the high-mass protostellar object IRAS18566+0408

(16) Chi Yan Law (Chinese Univ. of Hong Kong)

Characterizing the cloud contraction threshold from column density probability density function