

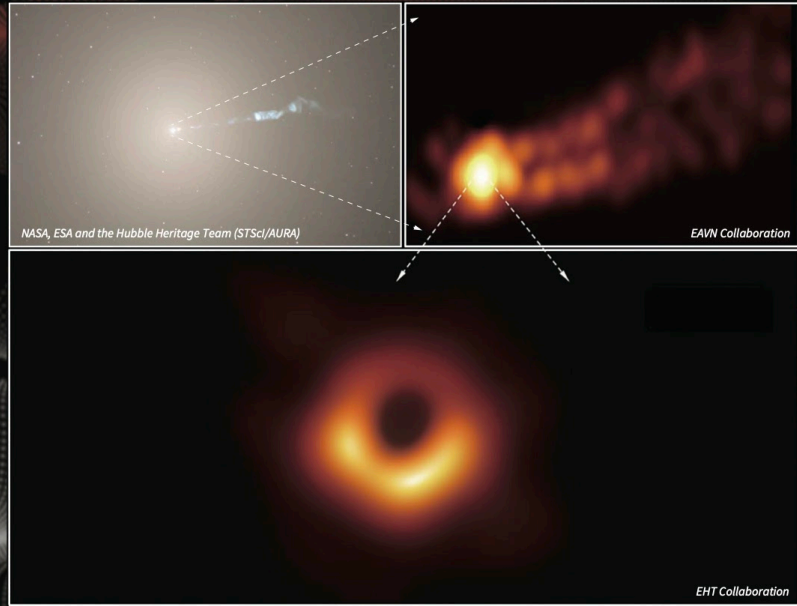
Opening address

Motoki Kino
On behalf of SOC

FRIS International Workshop

Active Galactic Nucleus Jets in the Event Horizon

Telescope Era



NASA, ESA and the Hubble Heritage Team (STScI/AURA)


EAVN Collaboration

EHT Collaboration

January 20 Mon - 22 Wed 2020
Aoba Science Hall in Science Complex C,
Aobayama Campus,
Tohoku University


Invited Speakers:

- K. Akiyama (MIT/NRAO)
- M. Honma (NAOJ/Mizusawa)
- T. Jung (KASI)
- T. Kawashima (NAOJ)
- Y. Kawazura (FRIS)
- J.-Y. Kim (MPHR)
- S. Kisaka (FRIS)
- R. Lu (SHAO)
- D. Mazin (ICRR)
- Y. Mizuno (Goethe U Frankfurt)
- M. Nakamura (ASIAA)
- K. Niinuma (Yamaguchi U)
- K. Ohsuga (U Tsukuba)
- J. Park (ASIAA)

website  https://www.astr.tohoku.ac.jp/~shigeo/agn_jet_2020/index.html

Scientific Organizing Committee:
K. Toma (FRIS), K. Hada (NAOJ/Mizusawa), M. Kino (Kogakuin U/NAOJ)

Sponsors:
Frontier Research Institute for Interdisciplinary Sciences (FRIS), Tohoku University



FLASH BACK TO 10 YEARS AGO

The first workshop of a series of “AGN jet workshop”

Towards a root of AGN jets:
Recent Progress @NAOJ,
(2010, Dec/14-15)

<http://vsop.mtk.nao.ac.jp/2010/AGNjet2010NAOJ.html>

- We had focused on M87
(much earlier than EHT era).
- We put importance on
Multi- λ collaboration

**Towards a root of AGN Jets:
Recent progress**

December 14-15, 2010

NAOJ, Mitaka Tokyo Japan
SUBARU Large Seminar Room

<http://vsop.mtk.nao.ac.jp/2010/AGNjet2010NAOJ.html>

Invited Speakers

K.Hada	(GUAS, NAOJ)
M.Honma	(NAOJ)
N.Isobe	(Kyoto Univ.)
H.Nagai	(ISAS/JAXA)
M.Orienti	(IRA/Bologna Univ.)
L.Stawarz	(ISAS/JAXA)
F.Takahara	(Osaka Univ.)
M.Uemura	(Hiroshima Univ.)

[SOC]

M.Kino	(NAOJ, Chair)
H.Nagai	(ISAS/JAXA)
K.Niinuma	(NAOJ)

[LOC]

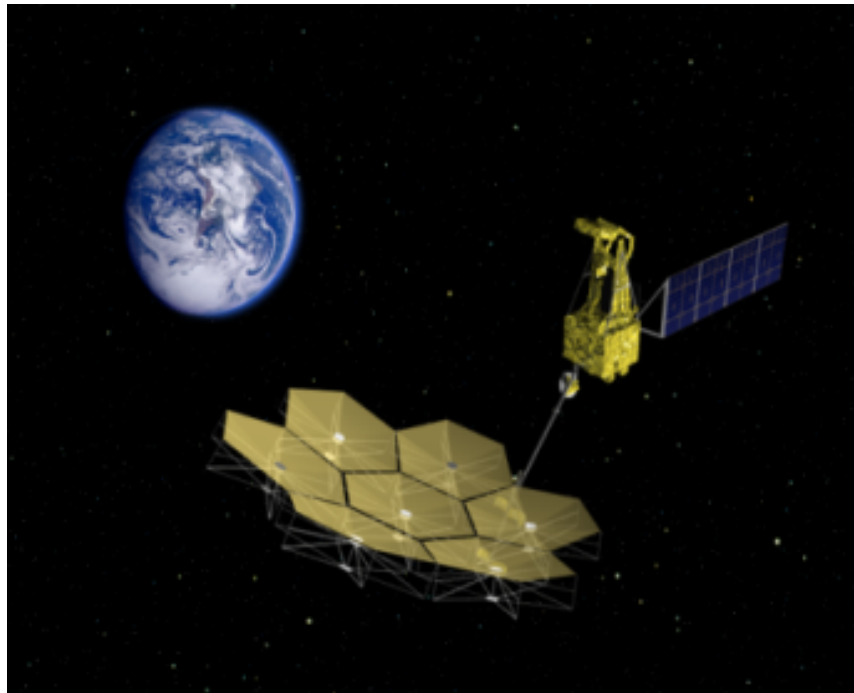
S.Koyama	(NAOJ)
K.Akiyama	(NAOJ)
K.Hada	(NAOJ)

Map labels: Subaru Building, Main Building, Main Gate, Cosmos Kaikan, Tenmondai Mae, Tenmondai Ura, Chofu, Musashino.

"Towards a root of AGN jets: Recent progress"
14th - 15th December, 2010 at NAOJ, Mitaka-campus



Initially, we set out space-VLBI project
aiming for imaging the jet base and
the BH-shadow.



Although the VSOP2 project was terminated in 2011,

many of BH enthusiasts were in the VSOP-2 project and survive till now.



Although here I do not go into
long story from 2011 to 2019,

I would like to emphasize that

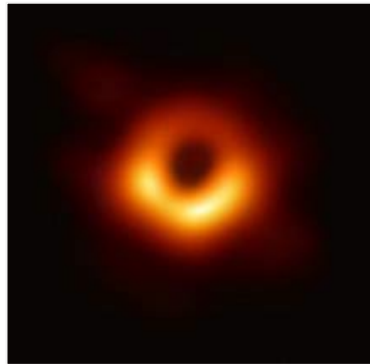
East Asian VLBI observers have played significant
roles for M87 observations and obtained key
results using EHT and/or EAVN.

Many of us are in this workshop!

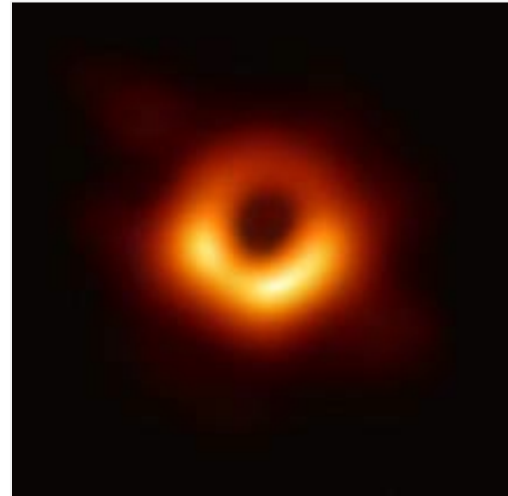
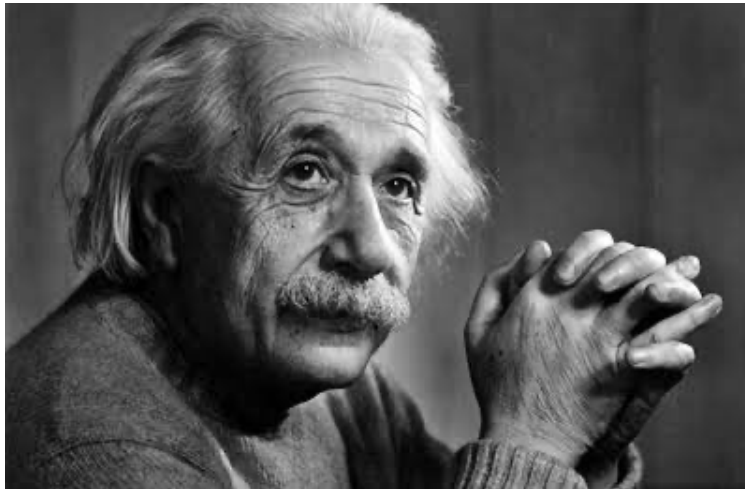
WHERE WE ARE NOW...

We are in a phase of pondering

“What are remaining
big issues after the photographing
M87’s BH shadow?”



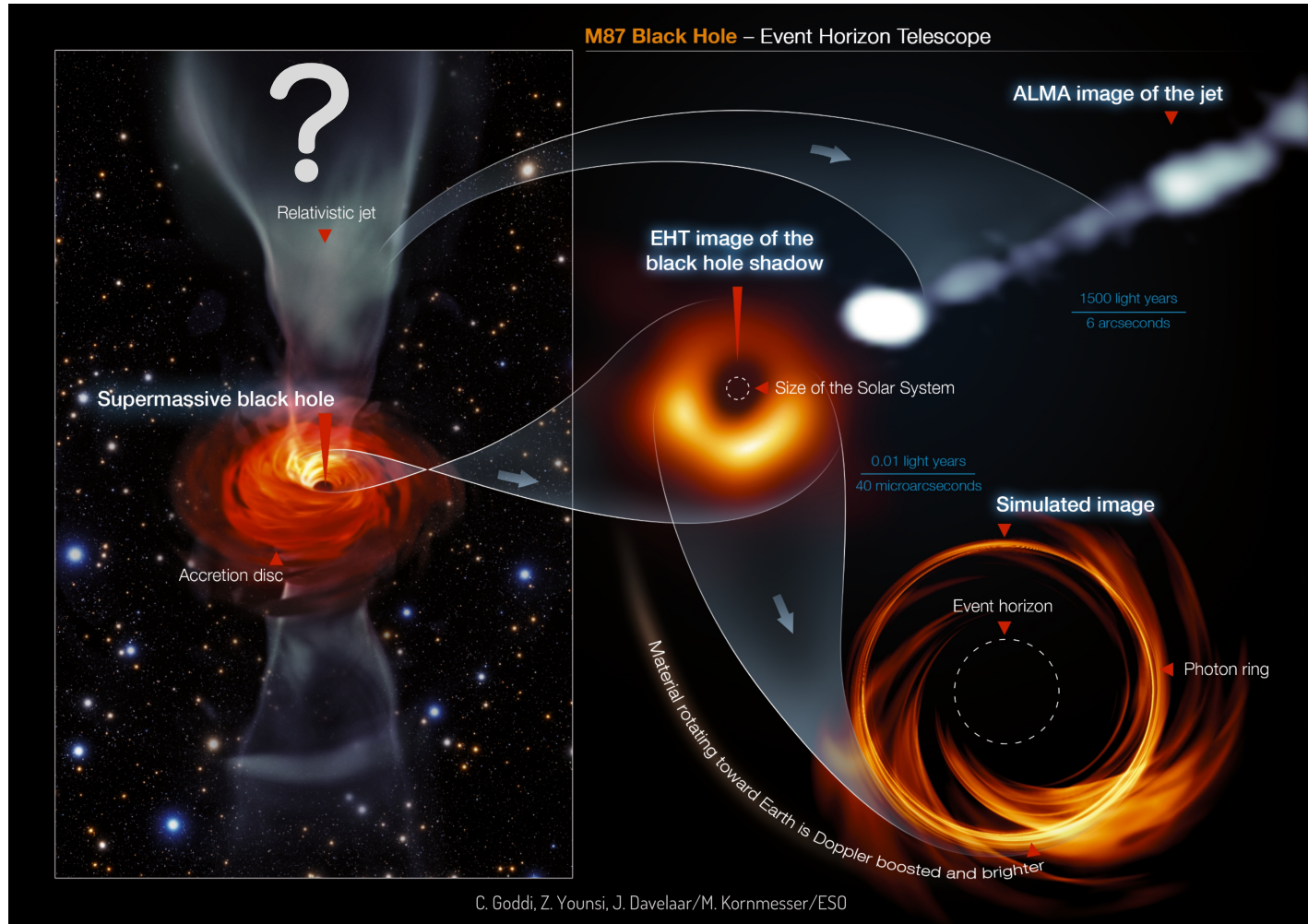
1. Testing Einstein's General Relativity



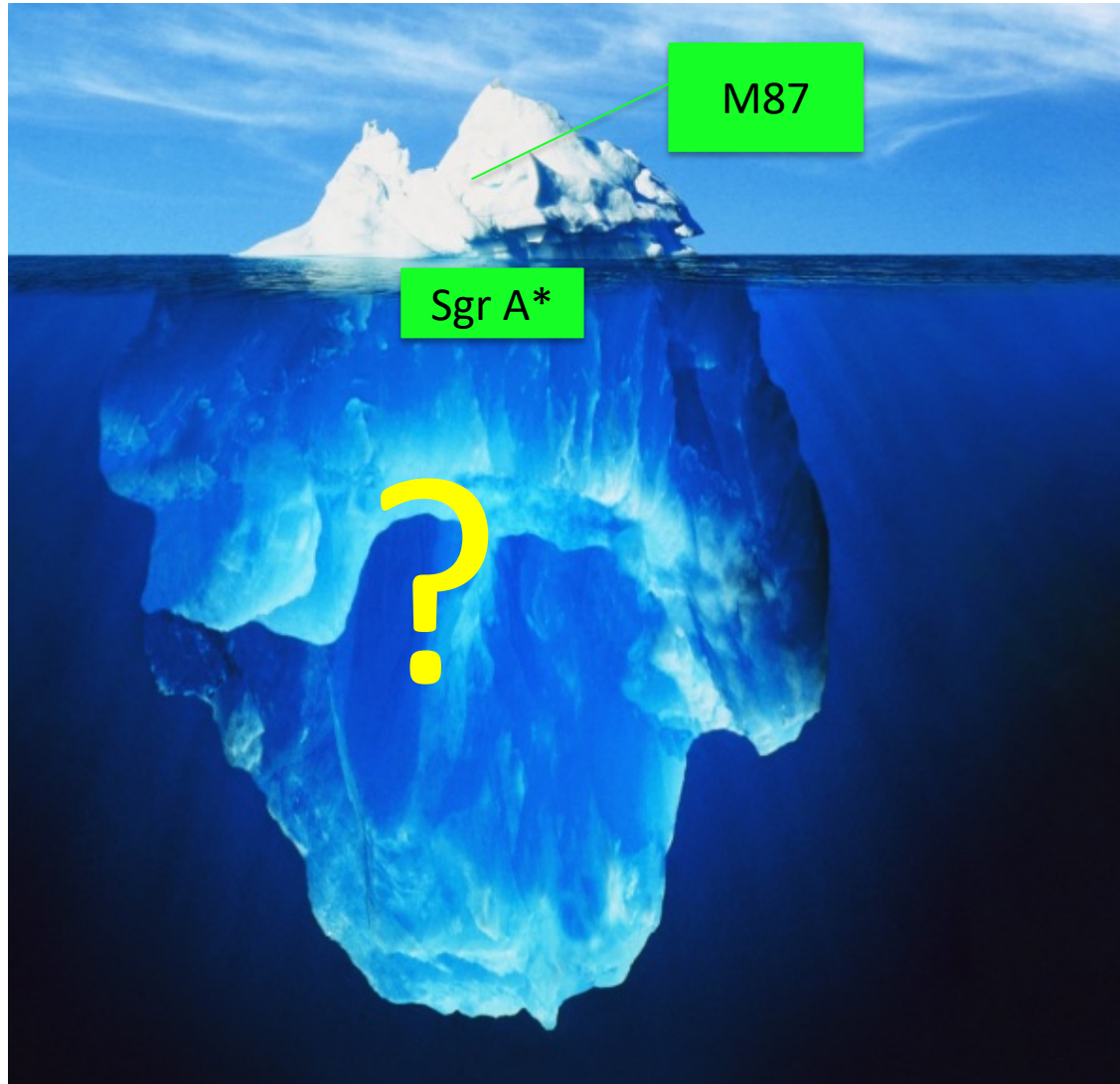
Alternative theory of gravity?

Black-hole mimicker?

2. energy extraction from Black Hole



3. BH populations other than M87



Whitepaper of Space VLBI



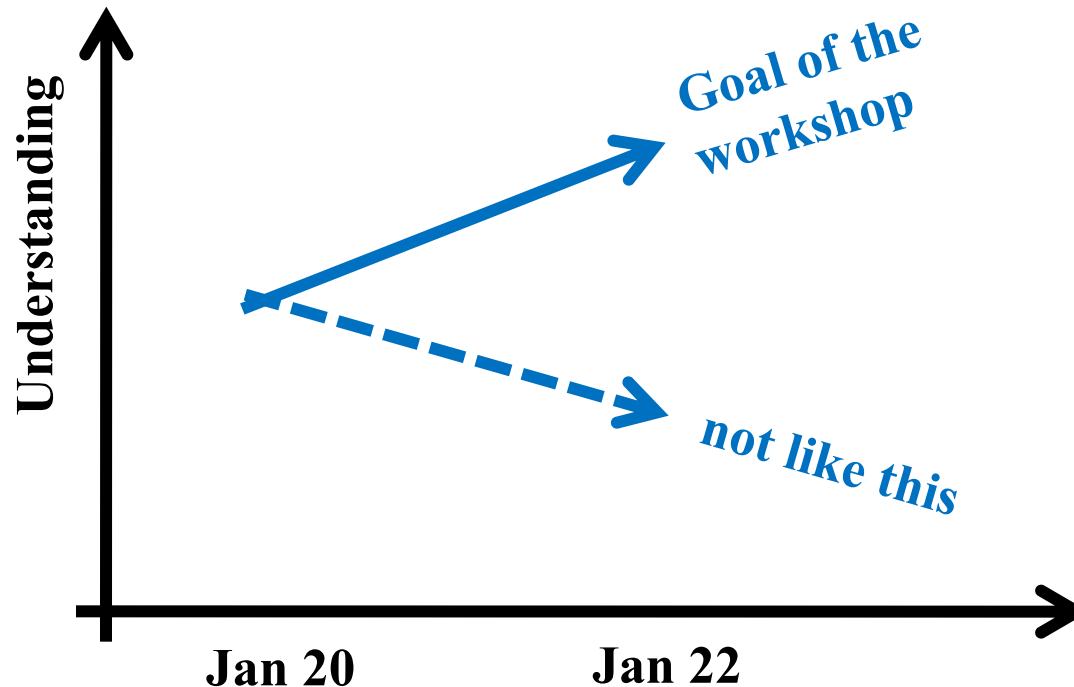
Astro2020 APC White Paper

Studying black holes on horizon scales with space-VLBI

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The goal of the workshop

- Both of theorists and observers (@multi-wavelengths) gather together and discuss new progresses and problems and get new hints of our own researches.



So let us actively discuss
various things and
enjoy the workshop!