BREAKING THE LIMITS

Super-Eddington accretion onto compact objects

Arbatax (OG), Italy, September 19-23, 2016

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Monday, September 19th 2016

	8:30-9:30	Registration
	9:30-9:45	Welcome
1. Accretion and ejection Physics	9:45-10:15	**Alexander Sadowski**: Simulating accretion flows - from the lowest to the highest accretion rates
	10:15-10:30	Matteo Bugli: Non-ideal GRMHD simulations of thick accretion disks around black holes: connecting small and large scales
	10:30-10:45	Bhupendra Mishra: Thermal instability (or not?) in three-dimensional, global, radiative GRMHD simulations of geometrically thin discs
	10:45-11:15	Coffee break
	11:15-11:30	Kohei Inayoshi: Hyper-Eddington accretion flows onto massive black holes
	11:30-11:45	Salvatore Cielo: Bursty AGN jets in compact galaxies, from 3D simulations
	11:45-11:12	Ileyk El Mellah: Numerical simulations of wind accretion onto compact objects : a multi-scale problem
	12:00-12:30	**Discussion**
	12:30-15:00	Lunch break
2. Black hole growth and galaxy evolution	15:00-15:30	**Andrew King**: Theory of black hole growth and galaxy evolution
	15:30-16:00	**Marcella Brusa**: Observations of black hole growth and galaxy evolution
	16:00-16:15	Felix Mirabel: Stellar Black Holes Formed in the Dark
	16:15-16:30	Hannalore Gerling-Dunsmore: Small Seed Black Hole Growth in Various Accretion Regimes
	16:30-17:00	Coffee break
	17:00-17:15	Yuya Sakurai: Hyper-Eddington accretion onto a black hole with super-Eddington luminosity
	17:15-17:30	Alessandro Lupi: Growing massive black holes via super-critical accretion of stellar mass seeds
	17:30-17:45	Stergios Amarantidis: The earliest accreting supermassive black holes : indications from models for future observations
	17:45-18:00	Laura Blecha: Uncovering the Signatures of Obscured AGN in Mergers
	18:00-18:15	Benny Trakhtenbrot: New Constraints on the Radiative Efficiencies of the Highest-Redshift Quasars
	18:15-18:45	**Discussion**

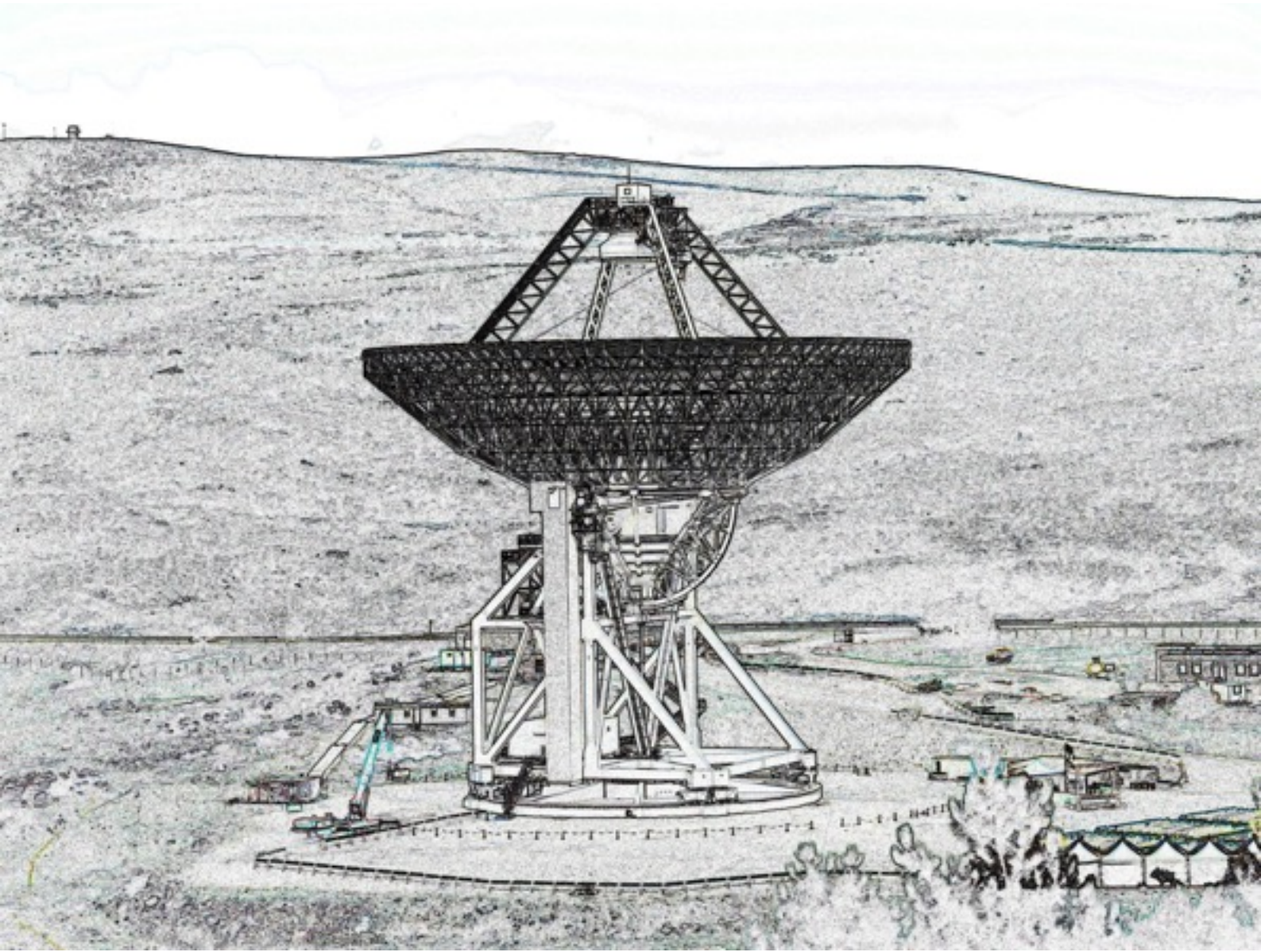
Tuesday, September 20th 2016

3. Active Galactic Nuclei and Quasars

09:30-10:00	**Chris Reynolds** - Review
10:00-10:15	Francesco Tombesi: Evidence for a super-Eddington wind in the ultraluminous infrared galaxy IRAS F11119+3257?
10:15-10:30	James Reeves: Broad Soft X-ray Absorption Lines from the Quasar Wind in PDS 456.
10:30-10:45	Valentina Braito: Revealing the nature of AGN winds; from the fast to the slow components
10:45-11:00	Kouichi Hagino: Ultra-fast disk wind from a high accretion rate black hole 1H 0707-495
11:00-11:30	Coffee break
11:30-11:45	Francesca Panessa: AGN from low to high Eddington ratios: the X-ray and radio perspective
11:45-12:00	Martin Ward: New evidence that some of the gamma-ray detected Narrow Line Seyfert 1s are Super Eddingtion Sources
12:00-12:15	Manuela Bischetti: Revealing the heaviest, highly-accreting SMBHs at the heart of hyper-luminous quasars
12:15-12:30	Mary Loli Martínez-Aldama: Exploring the spectral properties of highly accreting quasars at high redshift
12:30-15:00	Lunch break
15:00-15:15	Ken Ebisawa: Origin of spectral variations of Seyfert 1 galaxies
15:15-15:30	Misaki Mizumoto: Characteristic X-ray spectral variations in the iron L-band of IRAS 13224-3089, 1H 0707-495 and NGC 4051
15:30-15:45	Tracey Jane Turner: Measuring Light Echos in NGC 4051
15:45-16:00	Emanuele Nardini: Discovery of transient iron fluorescence in the bare Seyfert Ark 120
16:00-16:15	Yoshiyuki Inoue: Discovery of the millimeter excess in a nearby Seyfert nucleus: Toward unveiling the magnetic field in the vicinity of a supermassive black hole
16:15-16:30	Filippos Koliopanos: In search of the missing population of intermediate mass black holes
16:30-17:00	Coffee break
17:00-17:30	**Discussion** - Andrew King
18:45-23:30	**SOCIAL DINNER**

Wednesday, September 21st 2016

5. ULX	9:30-10:00	**Mar Mezcua**: Multiwavelength observations of ULXs
	10:00-10:15	Matteo Bachetti: M82 X-2: an ultraluminous pulsar
	10:15-10:30	Marianne Heida: NIR spectroscopy of ULXs
	10:30-10:45	Kristhell López: Near Infrared Counterparts of ULXs
	10:45-11:00	Hannah Earnshaw: Soft ULXs at the Eddington Threshold
	11:00-11:30	Coffee break
7. New missions	11:30-12:00	**Didier Barret**: Athena
	12:00-12:30	**Nicolo' D'Amico**: SRT and INAF missions
	12:30-13:00	**Discussion**
	13:00-14:00	Lunch break
	14:00-20:00	**SOCIAL TRIP to the Sardinia Radio Telescope**



Thursday, September 22nd 2016

4. Galactic Super-Eddington sources	9:30-10:00	**Rob Fender**: Review talk
	10:00-10:15	Katja Pottschmidt: Broad band continuum spectra of accreting pulsars around / above the critical luminosity
	10:15-10:30	Rebecca Nealon: QPOs from misaligned accretion discs
	10:30-11:00	Coffee break
	11:00-11:15	Valery Suleimanov: Super-Eddington accretion luminosity of highly magnetized neutron stars
	11:15-11:30	Jamie Court: Exotic Variability in IGR J17091-3624; A Comparison with GRS 1915+105
	11:30-12:00	**Discussion** - Felix Mirabel
	12:00-15:00	Lunch break
5. (cont.) Ultraluminous X-ray sources	15:00-15:30	**Ken Ohsuga**: Theory of ULXs
	15:30-16:00	**Matthew Middleton**: Observations of ULXs
	16:00-16:15	Tim Roberts: At the extremes of super-Eddington accretion
	16:15-16:30	Andrew Sutton: Crossing the Eddington limit: investigating accretion disc spectra in ultraluminous X-ray sources and sub-Eddington binaries
	16:30-17:00	Coffee break
	17:00-17:15	Ciro Pinto: Discovery of powerful winds in ultraluminous X-ray sources
	17:15-17:30	Michal Bursa: Effects of geometry and mass accretion rate on thermal spectra of ULX sources
	17:30-17:45	Shogo Kobayashi: Comparing ULXs with the other High-Eddington Sources
	17:45-18:00	Takumi Ogawa: A unified model for ULXs and ULSs; radiation hydrodynamics simulations of super-Eddington accretion flows
	18:00-18:30	**Discussion**

Friday, September 23rd 2016

6. GRBs and TDEs

9:30-10:00	**Stefanie Komossa**: Jetted and non-jetted tidal disruption events
10:00-10:30	**Andrei Beloborodov**: Review of GRBs
10:30-11:00	Coffee break
11:00-11:15	Lixin Jane Dai: Tidal disruption events as a probe of super-Eddington accretion
11:15-11:30	Erin Kara: Relativistic reverberation in a tidal disruption event
11:30-11:45	Ayako Ishii: Coupled Computation of Radiative Transfer with Relativistic Hydrodynamics Relevant to GRB Emission Process
11:45-12:15	**Discussion** - Luigi Piro
12:15-12:30	**Conclusions**

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