Status of RSDC

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RSDC

- *Supports the archive of all publicly available + Russian PI data*
- *Has the current OSA (OSA-11 !) + Russian INTEGRAL software installed*
- *Is used by IKI scientists, scientists from Sternberg Astronomical Institute (Moscow University), Kazan University, Ioffe Institute, Pulkovo Observatory, Lebedev Physical Institute, Moscow Engineering Physics and Moscow Technical Physics Institutes*
- *Uses Russian optical telescopes for identificaton (and study) of new IGR sources (RTT-150 at Turkey, 6-m telescope at Nizhnii Arkhyz, AZT33IK at Sibirya/Monds)*

RSDC

- *Supported by the Russian Academy of Sciences and Space Research Institute*
- *Archive data occupy now more than 35 Tb + 19 Tb working field (3 SUNs +1 Fujitsu servers)*
- *Garantee time exceeded, many of the disks are not working now*
- *There was possibility to use resources of the SRG Data Center (10 computer servers, 200 Tb) but it will dissaper after the launch of SRG on 21 June 2019.*
- *New server with a large HDD field was purhased:*
  Supermicro (CPU Intel Xeon E5-2620v4 2.1GHz Mem 32 Gb)
  HDD 80 Tb (60Tb under RAID 6)

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Russian INTEGRAL theses

- *PhD - 13 (RSDC: Chelovekov, Tsygankov, Shtykovskii, Krivonos, Molkov, Karasev, Filippova, Prosvetov, others: Arefiev, Minaev, Krassilshikov, Mereminskiy, Khorunzhev)*

- *DSc - 5 (RSDC: [Revnivtsev], Sazonov, Lutovinov, others: Bikmaev, Seifina)*

X-ray Transient Monitoring in 2019

- **INTEGRAL detects renewed activity from the microquasar XTE J1908+094** (Rodriguez, Mereminskiy, Grebenev, Cangemi, et al.) ATel 12628 (2019).
- **INTEGRAL identified with SAX J1747.0-2853 a source of the X-ray outburst in the Galactic center region detected by MAXI** (Mereminskiy, Grebenev, Sunyaev, Kuulkers) ATel 12578 (2019).
- **INTEGRAL detected the beginning of a new X-ray outburst of BHC IGR J17464-3213** (Grebenev, Mereminskiy) ATel 12007 (2018).
- **LIGO/Virgo S190425z: INTEGRAL SPI-ACS prompt observation** (Minaev, Pozanenko, Grebenev, Chelovekov) GCN Circular 24170 (2019).
- **LIGO/Virgo S190425z: INTEGRAL IBIS prompt observation** (Chelovekov, I., Pozanenko, A., Minaev, P., Grebenev, S.) GCN Circular 24181 (2019).
- **LIGO/Virgo S190602aq: upper limit in INTEGRAL SPI-ACS prompt observations** (Minaev, Pozanenko, Grebenev, Chelovekov) GCN Circular 24727 (2019).

Problems in our work

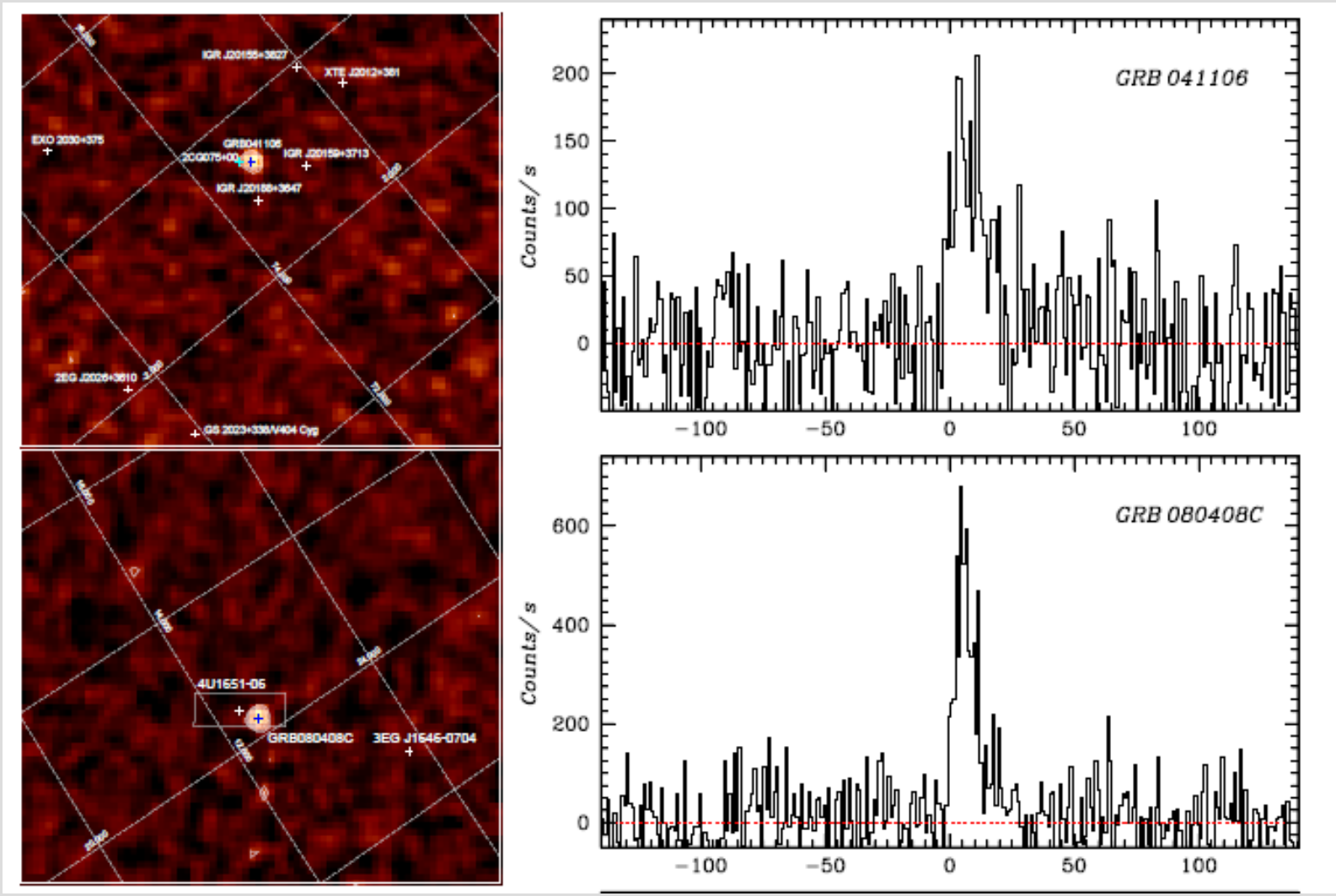
- ***SPI/ACS data which are formally public are not open in the NRT data flow at ISDC (the data of private PI observations)***
- ***The same for IREM data***
- ***ISDC should provide the way for getting these data in time without delay independently on data of main instruments***

Seach for GRBs with IBIS/ISGRI

- ***Covers time interval since beg. 2003 till 2018 (rev 40 - 1920)***
- ***>800 GRB bursts detected (most of them have already been observed by SPI/ACS or other missions)***
- ***Contrary to SPI/ACS ISGRI can provide us with the spectra of all events***
- ***11 GRBs within the IBIS FOV (not detected by IBAS)***
- ***7 new GRBs within the FOV (not detected neither by IBAS nor other missions)***
- ***114 confirmed IBAS events (all except 2 very faint events and 2 not GRBs)***

(Chelovekov, Grebenev, Pozanenko, Minaev, AstL, 2019)

Seach for GRBs with IBIS/ISGRI



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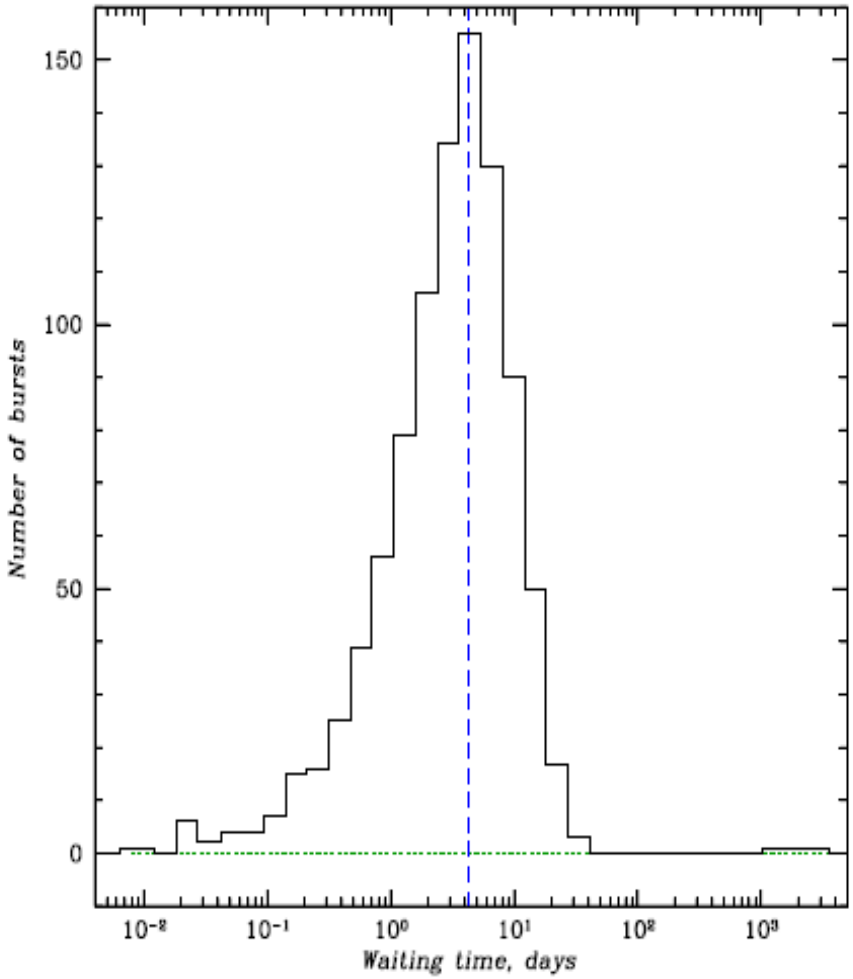
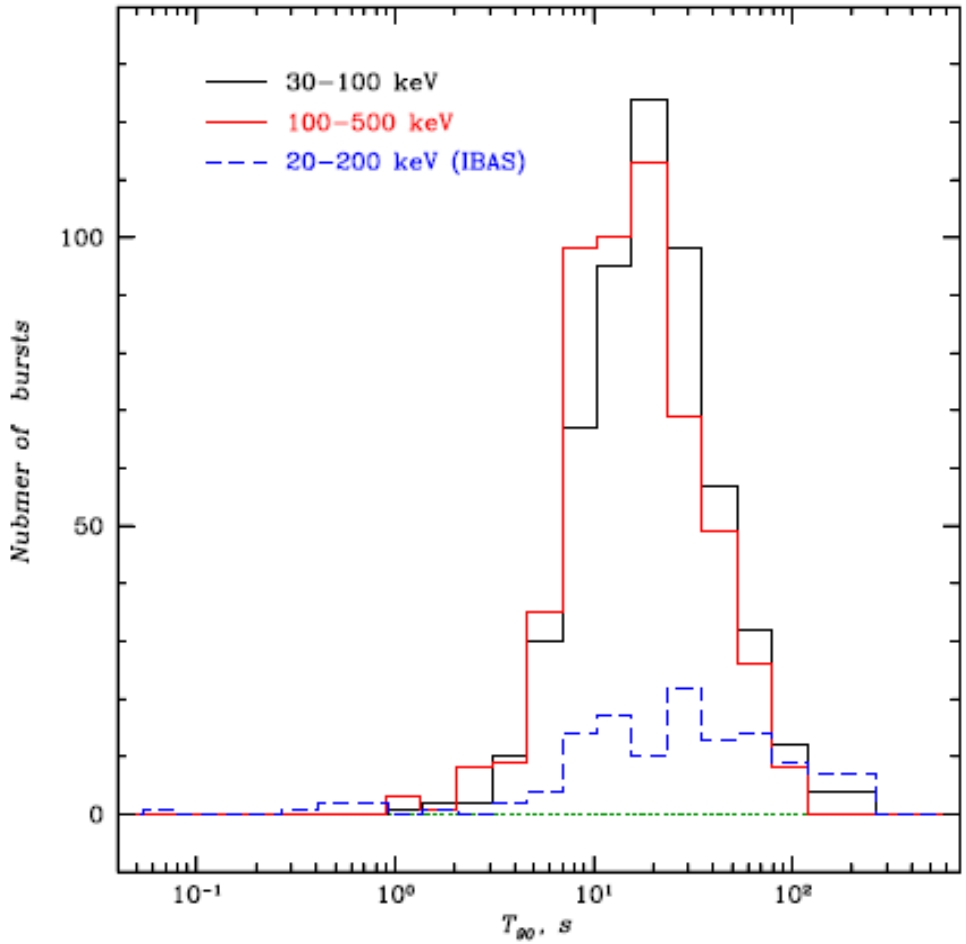




SRG mission

- ***RSDC scientists will be involved in work with data of the SRG mission which is scheduled for the launch on June 21, 2019.***
- ***Preparing for the launch***
- ***Docking SRG spacecraft to the PROTON booster at Baikonur (beginning of June 2019)***

SRG mission

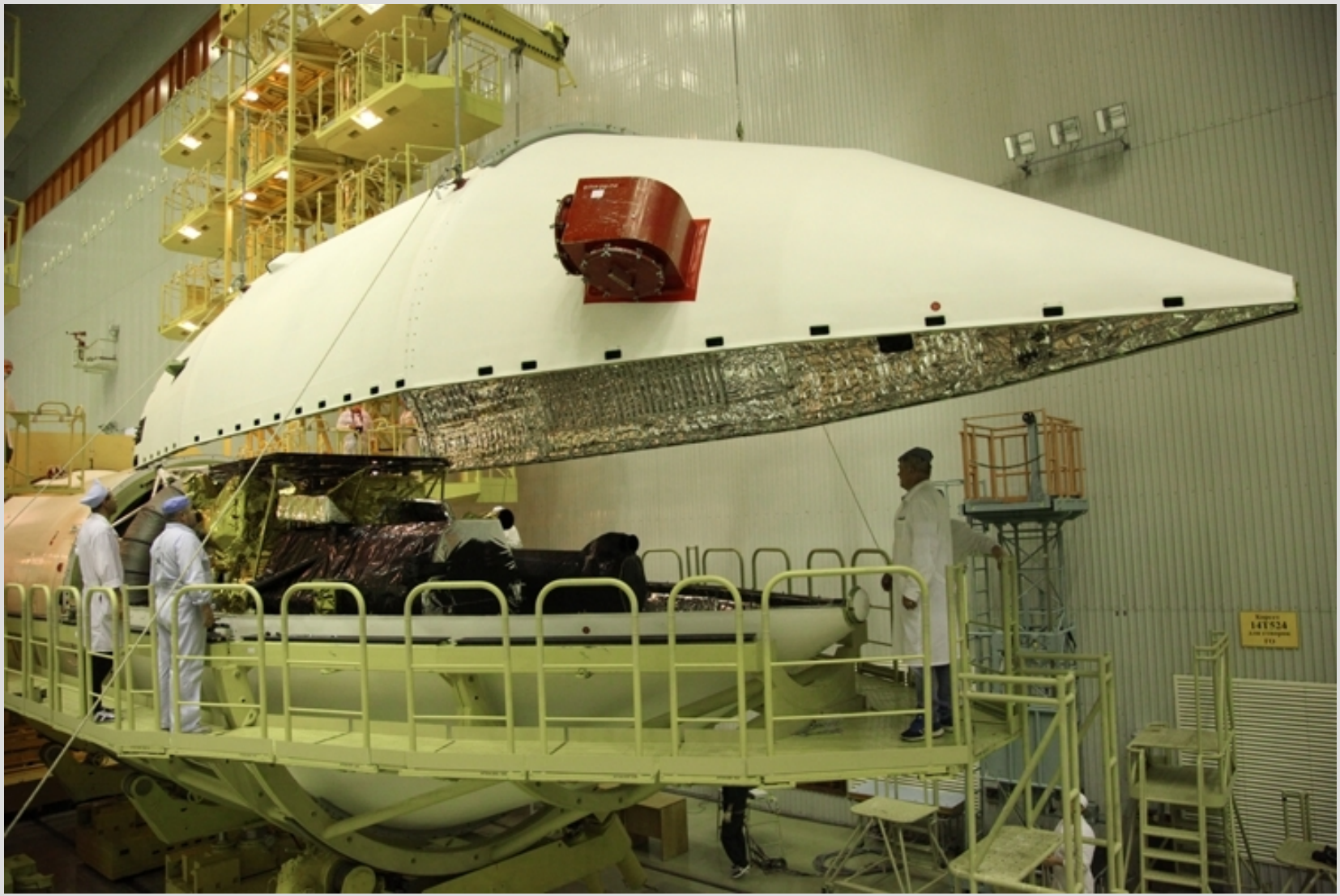
- ***Docking to the PROTON booster at Baikonur***

SRG mission

Closing SRG by the PROTON lid at Baikonur

SRG mission

Closing SRG by the PROTON lid at Baikonur



SRG mission

Closing SRG by the PROTON lid at Baikonur

Observations of GW events with INTEGRAL

- *MMA team headed by ISDC was organized when information on GW events was restricted for community, it has small number of participants that really does not represent INTEGRAL community at large*
- *Currently information on GW events is distrbuted immediately and broadly*
- *Main instrument for prompt GW observations is SPI/ACS, its data are public according to our rules (our GRB analysis of IBIS/ISGRI data shows that IBIS also effectively detects off-axis events and may compete with SPI/ACS but these data are generally not public)*
- *Thus, any team may do the same analysis as the MMA team*

Either membership of the MMA team should be increased including all interested scientists or we must adopt that other teams will independently work on this problem using INTEGRAL data