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January 11, 2022

https://www.isdc.unige.ch/~savchenk/cv.pdf

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Personal

Born on October 14, 1985 in Kyiv

Citizen of Ukraine.

Education

2002-09 - 2007-07 M.Sc. Particle and nuclear physics, Kiev Taras Schevchenko National University, including advanced courses and schools in theoretical, particle and astroparticle physics at Bogolyubov Institute for theoretical physics (Kiev) and Joint Institute for Nuclear Research (Dubna, Russia).
Took active part in establishment of a Swiss-Ukrainian virtual observatory project , lead technical aspects of it's deployment . In the frame of this project started research in astroparticle physics.

2008-01 - 2012-04 Ph.D. *mention astronomie et astrophysique*, University of Geneva. Thesis "Gamma-ray bursts" (advisor Prof. Thierry Courvoisier, 2012-04-24) focused on observational and theoretical aspects of this puzzling astrophysical phenomenon. Research touched a variety of other topics: pulsars, dark matter, object classification. Took part in INTEGRAL spacecraft operations. Worked on improving of data reduction accuracy and on modelling instrument response to high energy particles : this work involved development of a complex data reduction workflow, which was then applied to a large diverse dataset (near 1M items) . Created web service for rapid distribution of the pre-reduced data . This service is still widely used by the community .

Employment

2006-09 - 2007-12	Engineer, Bogolyubov Institute for theoretical physics, Kiev, Ukraine. Actively involved in creation of ukrainian national Grid infrastructure, ukrainian contribution to the growing needs of high-energy physics experiments. Explored possibilities of Grid for astrophysical applications. At the same time worked on supporting and developing computing resources of Swiss-Ukrainian virtual observatory project.
2012-05 - 2012-12	Post-doctoral researcher at ISDC data centre , Observatory of Geneva, Switzerland. In a brief several months between finishing PhD and starting post-doctoral position in Paris continued research started during PhD, stayed involved in INTEGRAL operations.
2013-12 - 2016-12	Post-doctoral researcher, INTEGRAL/ISGRI instrument team member (team leader F. Lebrun, since 2016 - Ph. Laurent) , François Arago Centre, APC, Université Paris Diderot. Responsible for modelling response of hard X-ray detector ISGRI, made a major improvement solving long-standing problem in this area. Actively exploring Grid and cloud infrastructures for deploying flexible analysis frameworks and software preservation (StratusLab, OpenStack at IN2P3 CC-Lyon). Involved in multimessegner studies, in particular playing leading role in INTEGRAL follow-up of gravitational wave events.
2017-01 - now	Post-doctoral researcher at ISDC , Departement of Astronomy, University of Geneva. Responsible for INTEGRAL in-flight calibration at ISDC. Leading the multimessenger follow-up activities with INTEGRAL. Deeply involved in developing innovative approaches for preservation and improved reusabiliy of astrophysical data and software, primarily in cloud-native web-based data-analysis workflows.

Experience

Languages

Ukrainian, Russian	native
English	professional proficiency
French	intermediate

Student supervision

In 2015 I co-supervised an M1 student in Paris University, Michele Tsirou.
In 2016 I co-supervised an M2 student in Paris University, Anna de Marco.
In 2019 I co-supervised a Master student in University of Geneva, Tinnaneri Sreekanth Vilasini.
In 2021 I co-supervised a Master student in University of Geneva, Tutukhanim Balayeva

Collaboration management

I co-lead organization of a large collaboration of observations with INTEGRAL telescope. Organized multiple meetings, developed web site (including web-based data analysis services).

Meeting organization

In 2012-2014 I lead an effort to bootstrap a group of researchers from Paris region interested in the GRB science. As part of the process I organized regular meetings.

In 2014 the GRB Paris group organized a large workshop "Gamma-Ray Bursts in the Multi-messenger Era"[1].

In December 2015 I lead organization of "Distributed Computing in Astrophysics" workshop at APC/FACe"[2].

[1] https://indico.in2p3.fr/event/9603/
[2] http://www.apc.univ-paris7.fr/FACe/content/distributed-computing-astrophysics

Computing

Python, Bash, Latex	high proficiency.
SQL, HTML, JavaScript, C++, C, FORTRAN, IDL	intermediate profficiency
Ruby, Java, Go, Rust, Kotlin	basic experience
git, gitlab, github	use routinely, develop and maintain large CI/CD pipelines
Web service development	developed several service for distributing scientific data.
Public Cloud infrastructures	primarily used academic infrastructures (StratusLab, OpenStack at CNRS/IN2P3/CC-Lyon, UNIGE cloud), but also deployed smaller projects to Hetzner, DigitalOcean, AWS
On-premise Kubernetes/RKE cluster	provisioned, built, and support a Kubernetes cluster, used it for supporting service stack, widely used by the INTEGRAL collaboration and broader scientific community
Containers (Docker, Singularity)	in addition to developing and managing containerize workflows, distributed containers for use by the scientific community
ELK stack, fluentd, Sentry	deployed and maintained for logging and monitoring
Linux administration, ansible	in 2006-2008 was responsible for operation of servers for scientific projects. Currently maintain a bare metal Kubernetes cluster
Apache Kafka, SPARK	used for processing astrophysical alerts
Apache Fuseki	deployed and used for managing project knowledge base
HPC computing: Slurm, SGE	used for large scale runs
HEAsoft, Xspec and many specialised astrophysical instrument software packages	extensively used
ROOT, GEANT	followed "Formation de Geant4" at LAL in May 2014
Redmine, Jira, Confluence, Github, Gitlab	use for AGILE project managment

Awards

2017 Mikhail G. Revnivtsev Prize, by ESA/INTEGRAL, IKI and INAF.
2018 Zeldovich Medal, by COSPAR and RAS.

Publications

Selected Journal Articles

1. INTEGRAL Detection of the First Prompt Gamma-Ray Signal Coincident with the Gravitational-wave Event GW170817
***Savchenko, V.**; Ferrigno, C.; Kuulkers, E.; Bazzano, A.; Bozzo, E.; Brandt, S.; Chenevez, J.; Courvoisier, T. J.-L.; Diehl, R.; Domingo, A.; Hanlon, L.; Jourdain, E.; von Kienlin, A.; Laurent, P.; Lebrun, F.; Lutovinov, A.; Martin-Carrillo, A.; Mereghetti, S.; Natalucci, L.; Rodi, J.; Roques, J.-P.; Sunyaev, R.; Ubertini, P.*
2017, ApJ 848L/15S

2. Gravitational Waves and Gamma-rays from a Binary Neutron Star Merger: GW170817 and GRB 170817A
LIGO Scientific Collaboration, Virgo Collaboration, Fermi Gamma-Ray Burst Monitor, INTEGRAL
2017, ApJ, 848L/13A

3. An online data analysis system of INTEGRAL telescope
*A. Neronov; **V. Savchenko**; A. Tramacere, M. Meharga, C. Ferrigno, S.Paltani*
2021, A&A, 651/A97

4. INTEGRAL Discovery of a Burst with Associated Radio Emission from the Magnetar SGR 1935+2154 *Mereghetti, S.; **Savchenko, V.**; Ferrigno, C.; Götz, D.; Rigoselli, M.; Tiengo, A.; Bazzano, A.; Bozzo, E.; Coleiro, A.; Courvoisier, T. J. -L.; Doyle, M.; Goldwurm, A.; Hanlon, L.; Jourdain, E.; von Kienlin, A.; Lutovinov, A.; Martin-Carrillo, A.; Molkov, S.; Natalucci, L.; Onori, F. Panessa, F.; Rodi, J.; Rodriguez, J.; Sánchez-Fernández, C.; Sunyaev, R.; Ubertini, P.*
2020, ApJL, 898/2, L29

5. Identification of a Local Sample of Gamma-Ray Bursts Consistent with a Magnetar Giant Flare Origin *Burns, E.; Svinkin, D.; Hurley, K.; Wadiasingh, Z.; Negro, M.; Younes, G.; Hamburg, R.; Ridnaia, A.; Cook, D.; Cenko, S. B.; Aloisi, R.; Ashton, G.; Baring, M.; Briggs, M. S.; Christensen, N.; Frederiks, D.; Goldstein, A.; Hui, C. M.; Kaplan, D. L.; Kasliwal, M. M. Kocevski, D.; Roberts, O. J.; **Savchenko, V.**; Tohuvavohu, A.; Veres, P.; Wilson-Hodge, C. A.*
2021, ApJL 907/2, id.L28

Press releases

The paper "INTEGRAL Upper Limits on Gamma-Ray Emission Associated with the Gravitational Wave Event GW150914" was featured in ESA press release on 30 March 2016, as well as press releases of multiple other institutions, including UNIGE.

The paper "INTEGRAL Detection of the First Prompt Gamma-Ray Signal Coincident with the Gravitational-wave Event GW170817" was featured in ESA press release on 16 October 2017 as well as press releases of multiple other institutions, including UNIGE..

The paper "INTEGRAL IBIS and SPI-ACS detection of a hard X-ray counterpart of the radio burst from SGR 1935+2154" was featured in ESA press release on 16 October 2020.

As well as multiple other, more limited, media communications, most recently about our contribution to the paper "Identification of a Local Sample of Gamma-Ray Bursts Consistent with a Magnetar Giant Flare Origin" were featured by UNIGE press office on 13 January 2021.

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