Project proposal title (up to 200 characters): Blowing in the Wind
Acronym (up to 20 characters): BOWIE

Name, father's/mother's name and family name: **Majda Janez Smole**
Principal Investigator (PI) or Participant: Participant
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Username in the base of researches of the Ministry responsible for scientific research: msmole@aob.rs
Name and address of the Scientific institution during the implementation of the Project and Scientific institution contact person: Astronomical Observatory, Volgina 7, 11060 Belgrade, Serbia, Director Gojko Đurašević

BIOGRAPHY

- **Date and Place of birth:** 01.05.1989.

- **Age**: 31

- **Citizenship**: Serbian

- **Research field and areas**: Supermassive black hole growth, Galaxy evolution, Gravitational wave recoil, Numerical simulations

- **Education:**

  - **2008-2012** BSc in astrophysics, Faculty of Mathematics, University of Belgrade, Serbia, average grade: 9.03

  - **2012-2013** MSc in astrophysics, Faculty of Mathematics, University of Belgrade, Serbia, average grade: 9.75, **Master thesis title**: Modeling of supermassive black hole growth at redshift z=7

  - **2013-2017** PhD in astrophysics, Faculty of Mathematics, University of Belgrade, Serbia, average grade: 9.88, **PhD thesis title**: Supermassive black hole formation and role of galaxy mergers in their evolution

  PhD thesis supervisor: Dr Miroslav Micic, Associate Research Professsor

- **Positions:**

  - **2015-2016** Junior Research Assistant, Astronomical Observatory, Belgrade, Serbia

  - **2016-2018** Research Assistant, Astronomical Observatory, Belgrade, Serbia

  - **2018-present** Research Associate, Astronomical Observatory, Belgrade, Serbia

- **List of selected publications**:

  - Smole M., Micic M., Mitrasinovic A., 2019, "***Recoiling supermassive black holes in analytical and numerical galaxy potential***", MNRAS, 488, 5566

  - Barack L., Cardoso V., Nissanke S., et al. 2019, "***Black holes, gravitational waves and fundamental physics: a roadmap***", Classical and Quantum Gravity, 36, 14

  - Smole M. , Micic M., Martinovic N., 2015., "***SMBH growth parameters in the early Universe of Millennium and Millennium-II simulations***", MNRAS, 451 , 1964

  - Smole M., 2015., "***Recoiling Black Holes in Static and Evolving Dark Matter Halo Potential***", Serbian Astronomical Journal, 191, 17

  - Tomic S., Kraus,M., Oksala M., Smole M., 2013, "***Detection of a 1.59h period in the B super-giant star HD 202850***", Astronomy & Astrophysics, 542, L32

- **Citation number** (excluding self-citations) SCOPUS: 151

- **Hirsch index:** SCOPUS: 3

- **Project history:**

  2015-2019: Project No. 176021 "*Visible and Invisible Matter in Nearby Galaxies: Theory and Observations*" of the Ministry of Education, Science, and Technological Development of the Republic of Serbia

- **International scientific collaboration and mobility:**

  Student summer internship, Observatory Ondřejov, Czech Republic, 2011, 2012: Reduction and analysis of spectra of B stars (Kraus M., Tomic S., Oksala M., Smole,M., 2012. , *"Detection of a 1.59h period in the B supergiant star HD 202850"*, Astronomy & Astrophysics ,542 , L32)

  2018-present: member of Cost action CA16104 - "*Gravitational waves, black holes and fundamental physics*", European Cooperation in Science and Technology

- **Skills:**

  - Data processing**: IDL, Python**

  - Scientific modeling: analytic modeling, N-body simulations and galactic modeling with **GADGET-2**, **GalactICs** and **Enzo** code

  - big data analysis

  - Reduction of observational data: reduction and analysis of stellar spectra using **IRAF** softwere

- **Conferences/Schools:**

  Summer School on Cosmology, Petnica Science Cente, Serbia, 2013

  17th National Conference of Astronomers of Serbia, Belgrade, Short Talk, 2014

  Illuminating the Dark Ages: Quasars and Galaxies in the Reionization Epoch, Max-Planck-Institut für Astronomie, Heidelberg, Poster, 2016

  18th Serbian Astronomical Conference, Belgrade, Short Talk, 2017

  X Black Holes Workshop, Portugal, Short Talk, 2017

  COST action „Gravitational Waves, Black Holes and Fundamental Physics", University of Malta, Talk, Chairing a session, 2018

- **Summary:** Vast experience in modeling and simulating galaxy mergers, with hundreds of individual numerical simulations performed. Main expertise is ejection of black holes from galaxy merger remnants. Experience in analyzing the results from large cosmological simulations (Millennium, Millennium II and Illustris) and developing a model for early growth of supermassive black holes.