

# Institute for Basic Science (IB S)

<http://www.ibs.re.kr/>

IBS was established at Nov. 2011 as a legal entity

- To pursue creative knowledge for a better future,
- To promote global cooperation & interdisciplinary collaboration,
- To train future leaders in basic science.

Research areas:

Long-term pioneering and/or large-scale, group-based research subjects in basic science

For this, IBS has a plan to establish 50 research centers by 2021:

- \* 25 Centers at Daejeon (Central Region):

  - 15 at the IBS Headquarter

  - 10 at KAIST

- \* 15 Centers at 4 technical universities (PosTech, DGIST, UNIST, GIST) in South Region:

- \* 10 Centers at Other Areas

The annual budget of each Center will be 3M – 10M USD, depending on the research disciplines and subjects.

# 21 IBS Research Centers established at the present

Research Field	Research Center(Type)
Mathematics (1)	Center for Geometry and Physics(C)
Physics (7)	Center for Correlated Electron Systems(E)
	Center for Relativistic Laser Science (C)
	Center for Axion and Precision Physics Research (C)
	Center for Integrated Nanostructure Physics (E)
	Center for Artificial Low Dimensional Electronic Systems (C)
	Center for Underground Physics (H)
	Center for Theoretical Physics of the Universe(H)
Chemistry (6)	Center for Nanomaterials and Chemical Reactions (C)
	Center for Self-Assembly and Complexity (C)
	Center for Nanoparticle Research (E)
	Center for Soft and Living Matter (C)
	Center for Catalytic Hydrocarbon Functionalizations (C)
	Center for Multidimensional Carbon Materials (C)
Life Science (7)	Center for Cognition and Sociality (H)
	Center for Synaptic Brain Dysfunctions (C)
	Center for RNA Research (E)
	Academy of Immunology and Microbiology (C)
	Center for Plant Aging Research (C)
	Center for Neuroscience Imaging Research (E)
	Center for Genome Engineering (H)

\* H: Headquarter, C: Technical Univ Campus, E: Extramural Campus

# Three Centers for Fundamental Physics

\* **Center for Theoretical Physics of the Universe (CTPU)**

at the IBS Headquarter: <http://ctpu.ibs.re.kr/> (Director: Kiwoon Choi)

\* **Center for Axion and Precision Physics Research (CAPP)**

at the KAIST campus: <http://capp.ibs.re.kr/> (Director: Yannis Semertzidis)

- Experimental search for axion dark matter

- Experimental probe for the proton EDM

\* **Center for Underground Physics (CUP)**

at the IBS Headquarter: <http://cupweb.ibs.re.kr/> (Director: Yeongduk Kim)

- Experimental search for WIMP dark matter ([Upgraded KIMS](#))

- Experimental probe for neutrinoless double beta decay

[All these three Centers are in Daejeon, located nearby from each other.](#)

By 2017, a new campus for the IBS headquarter will be constructed at a walking distance (2km) from the KAIST campus.



Anybody interested in the research areas of these three Centers is very welcome to contact us and visit the Center.

Thank you for your attention, and also for the participation in the IBS-MultiDark joint focus program on WIMPs & Axions!