

# **Belle II Response to the Ongoing Russian Invasion of Ukraine**

## **Recalling—HEP as a Peace Driver and Belle II**

History shows that international scientific collaboration provides a unique window of communication and voice of reason, fostering mutual understanding and helping to overcome disputes. High-energy physics (HEP) is one of the academic fields leading in such a role.

We recall that HEP international collaborations arose after World War II, continued even during the Cold War and various cross-border conflicts, and produced numerous discoveries that contributed to all of humankind. Our experience has given us a deep appreciation of the merits of collaborative research as a driver for peace.

The Belle II Collaboration is such a global project of fundamental science with no military or commercial aspects. It consists of more than 1,100 researchers gathered from more than 120 institutions in 27 countries and regions. We are working together on a unique particle physics experiment to elucidate the fundamental laws of the Universe for the benefit of all humankind. The Belle II Collaboration includes researchers from Ukraine and Russia.

The members of the Belle II Collaboration are deeply concerned about Russia's invasion of Ukraine and the suffering it causes to many people. It is irreconcilable with the values of peace and respect that we stand for and exercise in our daily scientific work. We strongly oppose the letter signed by leaders of Russian institutes in support of the invasion.

We believe that the best answer to a politics of violence and a propaganda of hate is a peaceful and respectful collaboration of people from different nations. To express our rejection of an abuse of science by politics and to communicate that we are a collaboration of individuals working productively together independent of our nationalities, during these times of war in Ukraine we decided to temporarily remove our institute affiliations and associated country names from our publications. By taking this action we will not be divided.

## **Strong Condemnation of the War**

We strongly condemn the ongoing military invasion of Ukraine by Russia. The invasion has resulted in a great deal of death, suffering, and destruction, and constitutes a threat to international cooperation on all levels. We urge an immediate restoration of peace and international order.

## **Solidarity/Support for Ukraine**

We are gravely concerned for the safety of our friends and colleagues in Ukraine and for all people who are affected by the ongoing violence. The war puts our Ukrainian colleagues and their families and friends at risk of life and limb. It has destroyed their research environment and facilities and made it difficult for them to continue research in the future. We greatly admire the courage of our Ukrainian colleagues who are striving to protect their homeland.

We highly value the scientific contributions of researchers from Ukrainian institutes to the collaboration and the support that they have received from their government. The Belle II Collaboration will support our Ukrainian colleagues, provide temporary shelter and a research environment when needed, help them resume research as soon as possible, and ensure their continued participation in the experiment. We also support Ukrainian colleagues who belong to institutes outside Ukraine.

## **Collaboration with Russian Scientists**

While we strongly condemn the invasion of Ukraine by the Russian government, we appreciate the scientific contributions of individual researchers from Russian institutes and the funding that they have received. We respect their invaluable contributions over many years since the time of the Belle experiment. In particular, the Russian colleagues lead the development, construction, and operation of the calorimeter and muon subsystems, as well as physics analyses in a variety of areas. The Belle II experiment relies heavily on their contributions, talents, and expertise both in operation and analysis.

While we condemn the letter signed by leaders of Russian institutes in support of the war, we also admire the courage of those Russian researchers who continue to openly reject and even actively protested against the war. Some of them left the country and are in a difficult situation both personally and professionally.

## **KEK-DG Statement**

We support the statement by the KEK Director General on March 11, which strongly urged a peaceful resolution, expressed deep concerns about the impact of the war on academic development, and emphasized the continuation of the KEK efforts to provide support to all members of our community connected to Ukraine or Russia.

## **Division and Unity**

We are deeply concerned about the continuation of the war and about the possible development of additional conflicts if the situation deteriorates. We believe that, particularly in such times, we must stand united as a global scientific community. Particle physics is a non-military, non-economic area that fosters cooperation across boundaries of country, race, religion, culture, language, and ideology. Cooperation and open communication are a necessary ingredient in the effort to make a more peaceful world and end the current war. By contrast, sanctions against individual Russian researchers due to actions of their government can only cause division and be counterproductive in both the short and long terms.

## **Authorship**

Authorship is the most important element in the academic records. It acknowledges every author's contribution to the scientific result and establishes their academic responsibility for it. Excluding some authors for non-scientific reasons damages the scientific credibility of the work.

## **Constraints**

Belle II members in some countries cannot at this time be listed as authors on papers together with Russian institutes or funding agencies. In particular, this is the case for scientists from Ukraine. Ensuring the unity of the Belle II Collaboration necessitates respecting this constraint.

## **Summary –Belle II Measures**

Considering the above points, the Belle II Collaboration adopts the following measures:

- Belle II members from Russian institutes continue to contribute to the experiment as collaboration members.
- As for publications,
- We list the names of all individuals who signed the authorship confirmation.

- Author affiliations and country names are not listed. Instead, individual authors are uniquely identified using their ORCID.
- Papers will include the following acknowledgements that accurately recognize historical contributions pre-dating the Russian invasion of Ukraine:

“This work, based on data collected using the Belle II detector, which was built and commissioned prior to March 2019, was supported by ...(list of funding sources).

These acknowledgements are not to be interpreted as an endorsement of any statement made by any of our institutes, funding agencies, governments, or their representatives.

We thank the SuperKEKB team for delivering high-luminosity collisions; the KEK cryogenics group for the efficient operation of the detector solenoid magnet; the KEK computer group and the NII for on-site computing support and SINET6 network support; and the raw-data centers at BNL, DESY, GridKa, IN2P3, INFN, and the University of Victoria for offsite computing support.”

These measures will be reviewed regularly at every Belle II General Meeting until these extraordinary measures are no longer required.

(Adopted by the Institutional Board, 20 October 2022)