

### IPPOG 1<sup>st</sup> CB Meeting, 22 April 2017

# Hans Peter Beck: IPPOG Co-chair, Bern University Steve Goldfarb: IPPOG Co-chair, Melbourne



### 1<sup>st</sup> IPPOG Collaboration Board Meeting 22/04/2017

Quorum (2/3) = 11 out of 16

|    | Member             | Representative      | Proxy                      | Signature |
|----|--------------------|---------------------|----------------------------|-----------|
| 1  | Australia          | V                   | Steve Goldfarb             |           |
|    |                    |                     |                            |           |
| 2  | Belgium            | Dirk Ryckbosch      |                            |           |
| 3  | CERN               |                     | Barbora Bruant<br>Gulejova |           |
| 4  | Finland            | Panja-Riina Luukka  |                            |           |
| 5  | France             | Nicolas Arnaud      |                            |           |
| 6  | Germany            |                     | Uta Bilow                  |           |
| 7  | Italy              | Katja Peduto        |                            |           |
| 8  | The<br>Netherlands | Charles Timmermans  |                            |           |
| 9  | Norway             | Farid<br>Ould-Saada |                            |           |
| 10 | Poland             |                     |                            |           |
| 11 | Portugal           | Pedro Abreu         |                            |           |
| 12 | Romania            | Gabriel Stoicea     |                            |           |
| 13 | Slovak Republic    | Ivan Melo           |                            |           |
| 14 | Sweden             |                     |                            |           |
| 15 | Switzerland        |                     |                            |           |
| 16 | USA                | Marjorie Bardeen    |                            |           |





- Endorse incumbent IPPOG Chairs as the IPPOG Chairs
- Chairperson and Member Representative
- Addenda to the MoU on the
  - Participation of Scientific Laboratories
  - Participation of Scientific Collaborations
  - Participation of Countries
- IPPOG Budget 2017
- Application from Brazil to join IPPOG



|    | Organization   | Country/Lab/Expe<br>riment | Date signed       |
|----|--|----------------------------|-------------------|
| 1  | NIKHEF   | The Netherlands            | 22 September 2016 |
| 2  | DESY for KET   | Germany                    | 23 September 2016 |
| 3  | Physics Department of University of Oslo   | Norway                     | 21 October 2016   |
| 4  | LIP  | Portugal                   | 1 November 2016   |
| 5  | The Section for Elementary Particle and Astroparticle Physics of the Swedish Physical Society through the Swedish LHC Consortium | Sweden                     | 1 November 2016   |
| 6  | CHIPP  | Switzerland                | 4 November 2016   |
| 7  | Ministry of Education, Science, Research and Sport   | Slovak Republic            | 15 November 2016  |
| 8  | Institute of Atomic Physics  | Romania                    | 17 November 2016  |
| 9  | Helsinki Institute of Physics  | Finland                    | 29 November 2016  |
| 10 | FWO + F.R.SFNRS  | Belgium                    | 30 November 2016  |
| 11 | CERN   | CERN                       | 19 December 2016  |
| 12 | INFN   | Italy                      | 21 December 2016  |
| 13 | CNRS/IN2P3   | France                     | 23 December 2016  |
| 14 | The Henryk Niewodniczański Institute of Nuclear Physics<br>Polish Academy of Sciences  | Poland                     | 29 December 2016  |
| 15 | CoEPP  | Australia                  | 14 February 2017  |
| 16 | The University of Notre Dame on behalf of Quarknet   | USA                        | 14 March 2017     |
|    |  |                            |                   |



## **IPPOG Candidate Members**

IPPOG Members as of the pre-collaboration phase that have not yet signed the MoU automatically are now Candidate Members – **until 18 December 2018**.

Austria, Bulgaria, Czech Republic, Denmark, Greece, Ireland, Israel, Spain, South Africa, UK

ATLAS, ALICE, CMS, LHCb, TOTEM

DESY (as representing itself as a lab)

3.6 Current IPPOG participants shall join the IPPOG Collaboration as Members through the mechanism set out above in the course of a two-year period from the date of entry into force of this MoU. This period may be prolonged by a decision of the Collaboration Board where justified by exceptional circumstances. During this period, they shall have the status of "Candidate" with the same rights and obligations as Members, except as provided otherwise in this MoU.

### 3.8 Candidates shall have no voting rights and no annual membership fees shall be due.





# **IPPOG MoU**



INTERNATIONAL PARTICLE PHYSICS OUTREACH GROUP

MEMORANDUM OF UNDERSTANDING Establishing The International Particle Physics Outreach Group (IPPOG) Collaboration

#### PREAMBLE

IPPOG is a network of scientists, researchers, science educators, explainers and communication specialists active across the globe in outreach for particle physics;

IPPOG's mission is to maximise the impact of education and outreach efforts related to particle physics;

The European Strategy for Particle Physics, as adopted and updated regularly by the CERN Council, acknowledges the important role played by IPPOG in the promotion of particle physics;

The IPPOG stakeholders recognise the need to create a formal legal structure permitting IPPOG to increase the scope and quality of its work;

This Memorandum of Understanding (the "MoU") creates the IPPOG Collaboration and sets out its governance and the rights and obligations of participants.

#### ARTICLE 1 PURPOSE OF THIS MOU

- 1.1 This MoU creates the IPPOG Collaboration and sets out its governance and the rights and obligations of participants.
- 1.2 This MoU is not legally binding, but its signatories recognise that the longterm success of the IPPOG Collaboration depends on their adherence to the provisions of this MoU.

IPPOG CB Meeting #1, Lisbon, 22 April 2017

Will clarify in the upcoming CB meeting remaining points and questions raised.

Addenda to MoU clarify the expectations we have for Members

Countries

Scientific Collaborations

Laboratories

A provisionary Budget has been distributed

Addenda and Budget will be discussed and put forward for a vote.





## IPPOG MoU – 1<sup>st</sup> CB meeting

6.5 The first meeting of the Collaboration Board shall be convened by the incumbent IPPOG co-chairs.

6.6 The Collaboration Board shall, by a two-thirds majority of the votes cast, elect the Chairperson for a term of office of three years maximum, renewable once by three years maximum. Election shall normally be from among the Representatives, except where so decided by the Collaboration Board by two-thirds majority of the votes cast, from among the Candidate Representatives and the conveners of, or participants in, Working Groups and Activities, it being understood that the candidate(s) for this position shall have an existing affiliation with a Member or a Candidate Member. The Chairperson shall be elected by a two-thirds majority of the votes cast.

Playing strictly to these words, Steve and HP are the 'incumbent IPPOG co-chairs'

The Chair(s) need to be elected in the CB meeting – which is on Saturday.





## IPPOG MoU – 1<sup>st</sup> CB meeting

3.3 Members (the "Member(s)") shall appoint a single representative ("Representative") to serve on the Collaboration Board. Where a Representative is elected as the Chairperson, the Member concerned shall appoint a new Representative.

Playing strictly to these words, if HP and Steve shall be confirmed on Saturday, then HP can no longer represent Switzerland, and a new person representing Switzerland will need to be found.

3.5 Members shall cover the cost of travel, accommodation and other expenses incurred in relation to membership, and in general with their participation in the IPPOG Collaboration, and shall not receive financial support from the IPPOG Collaboration, except by a decision of the Collaboration Board where justified by exceptional circumstances.

6.3 Each Member, through its Representative, shall have one vote in the Collaboration Board. The Chairperson shall have no vote.

6.9 The cost of travel, accommodation and other expenses necessarily incurred by the Chairperson in the execution of his or her mandate shall be covered by the IPPOG Collaboration.



### **Addenda to the MoU**

### ARTICLE 15 AMENDMENT

15.1 This MoU may be amended by a decision of the Collaboration Board by a two-thirds majority of the votes cast.

Amendments specify further how IPPOG deals/handles specific issues, clarify how the MoU is to be interpreted. Amendments can not be in contradiction with the MoU – if in doubt, the MoU wording prevails.

15.2 The amendment of Addenda shall be subject to agreement of its signatories.

Here, signatories are those directly concerned. E.g. between a Lab and IPPOG, specifying the agreed contributions, etc.







# **IPPOG Funding**

- 8.1 The IPPOG Collaboration shall be funded by **annual membership fees**, other contributions, grants, subsidies, donations and sponsorship support, including in-kind contributions (collectively "Support"), which shall all be recorded in writing.
- 8.2 The annual membership fee shall be decided by the Collaboration Board.
- 8.5 Acceptance of proposed in-kind contributions and their value shall be decided by the Collaboration Board.
- 8.6 **In-kind contributions made by a Member shall not diminish its obligation to pay the annual membership fee** <u>except insofar as</u> <u>agreed by the Collaboration Board in accordance with criteria</u> <u>established by the Collaboration Board.</u>
- 9.1 The Collaboration Board shall each year, in principle at its session held during the second of the biannual meetings of the Forum, adopt the budget for the next year.





## **Member Categories**

- 3.1 National and international governmental bodies, professional societies, laboratories and institutes, as well as scientific collaborations active in particle physics or related sciences are eligible to apply for membership. Where there is no national organisational structure or leading institute for particle physics research, relevant funding bodies are also eligible to apply for membership.
- 3.2 Membership shall be organised on a national basis such that the bodies mentioned above shall together propose one among them for membership in the IPPOG Collaboration. It is understood that international bodies, including laboratories and scientific collaborations having a significant international participation, are eligible to apply for membership in their own right.

This boils down that in IPPOG, we have **Countries**, **Experiments**, and **Laboratories**.

Support to IPPOG (membership fee, in-kind, etc.) needs to be specified in addenda specific to the member categories, and case by case.





### **Addenda to the MoU**

Need to specify the Membership Fee, the support and expectations for all Member categories and all Members.

The criteria to settle these need to be agreed on and added in written in the form of addenda to the MoU.

IPPOG has expectations from Countries Addendum\_N\_countries\_draft

from Experiments Addendum\_SC\_scientific\_collaborations\_draft

and from Laboratories Addendum\_SL\_scientific\_laboratories\_draft

who are/will be Members in IPPOG.





# Addendum\_N\_countries\_draft

- 1 Participation of the chosen national body shall imply the commitment to **represent the entire particle physics community in the country** through deploying and maintaining efficient communication channels, enabling the **promotion of IPPOG activities to all IPPOG key audiences** at their institutions and sites, for enabling students, teachers and others interested to participate in IPPOG activities in as many places in the specific country as reasonably can be achieved.
- 2 The **annual membership fee** asked from a national member representing a country in IPPOG shall be one of three values (low, medium, high), as are agreed by the IPPOG Collaboration board, **considering the specific situation of the country.**

This breaks down to to 1k€, 3k€, and 5k€ depending on GDP and community size.

This is specified in Addendum\_NF\_annual\_membership\_fees\_countries



### Addendum\_NF\_annual\_membership fees\_countries

| Country           | # of PP scientists at: |      |                   | GDP        |                   | CERN PP                             | CERN +   | Minimum fee                                      | IPPOG Membership           |
|-------------------|------------------------|------|-------------------|------------|-------------------|-------------------------------------|--|--|----------------------------|
|                   | CERN                   | FNAL | CERN<br>+<br>FNAL |            | based fee<br>[k€] | community<br>size based fee<br>[k€] | FNAL PP<br>community<br>size based fee<br>[k€] | (GDP,<br>CERN+FNAL<br>PP community<br>size) [k€] | status<br>As of 29/03/2017 |
| USA               | 1915                   | 2386 | 4301              | 17,348,072 | 5                 | 5                                   | 5  | 5  | Member                     |
| Italy             | 1505                   | 118  | 1623              | 2,141,161  | 5                 | 5                                   | 5  | 5  | Member                     |
| Germany           | 1307                   | 79   | 1386              | 3,868,291  | 5                 | 5                                   | 5  | 5  | Member                     |
| United<br>Kingdom | 910                    | 235  | 1145              | 2,988,893  | 5                 | 5                                   | 5  | 5  | Candidate member           |
| France            | 933                    | 44   | 977               | 2,829,192  | 5                 | 5                                   | 5  | 5  | Member                     |
| Switzerland       | 477                    | 58   | 535               | 701,037    | 3                 | 5                                   | 5  | 3  | Member                     |
| Spain             | 334                    | 46   | 380               | 1,381,342  | 5                 | 5                                   | 5  | 5  | Candidate member           |
| Poland            | 264                    |      | 264               | 544,959    | 3                 | 3                                   | 3  | 3  | Member                     |
| Czech republic    | 234                    | 18   | 252               | 208,796    | 1                 | 3                                   | 3  | 1  | Candidate member           |
| Netherlands       | 172                    |      | 172               | 879,319    | 3                 | 3                                   | 3  | 3  | Member                     |
| Belgium           | 162                    |      | 162               | 531,547    | 3                 | 3                                   | 3  | 3  | Member                     |
| Greece            | 144                    |      | 144               | 235,574    | 3                 | 3                                   | 3  | 3  | Candidate member           |
| Finland           | 116                    |      | 116               | 272,217    | 3                 | 3                                   | 3  | 3  | Member                     |
| Sweden            | 107                    |      | 107               | 571,090    | 3                 | 3                                   | 3  | 3  | Member                     |
| Portugal          | 106                    |      | 106               | 230,117    | 1                 | 3                                   | 3  | 1  | Member                     |
| Romania           | 99                     |      | 99                | 192,094    | 1                 | 3                                   | 3  | 1  | Member                     |
| Austria           | 94                     |      | 94                | 436,888    | 3                 | 3                                   | 3  | 3  | Candidate member           |
| Norway            | 91                     |      | 91                | 500,519    | 3                 | 3                                   | 3  | 3  | Member                     |
| Slovakia          | 72                     |      | 72                | 97,713     | 1                 | 3                                   | 3  | 1  | Member                     |
| Israel            | 71                     |      | 71                | 305,673    | 3                 | 3                                   | 3  | 3  | Candidate member           |
| Hungary           | 67                     |      | 67                | 133,424    | 1                 | 3                                   | 1  | 1  | Candidate member           |

### Addendum\_NF\_annual\_membership fees\_countries

| Country      | # of P |      | Minimum fee       | IPPOG Membership |                    |                                     |  |  |                            |
|--------------|--------|------|-------------------|------------------|--------------------|-------------------------------------|--|--|----------------------------|
|              | CERN   | FNAL | CERN<br>+<br>FNAL |                  | based fee<br>[k€]  | community<br>size based fee<br>[k€] | FNAL PP<br>community<br>size based fee<br>[k€] | (GDP,<br>CERN+FNAL<br>PP community<br>size) [k€] | status<br>As of 29/03/2017 |
| Denmark      | 64     |      | 64                | 346,119          | 3                  | 3                                   | 1  | 1  | Candidate member           |
| Australia    | 40     | 18   | 58                | 1,471,439        | 5                  | 3                                   | 1  | 1  | Member                     |
| Bulgaria     | 49     |      | 49                | 54,481           | 1                  | 3                                   | 1  | 1  | Candidate member           |
| South Africa | 47     |      | 47                | 349,819          | 3                  | 3                                   | 1  | 1  | Candidate member           |
| Slovenia     | 20     |      | 20                | 49,491           | 1                  | 1                                   | 1  | 1  | Candidate member           |
| Ireland      | 9      |      | <b>IPPO</b>       | <b>G™</b> OU     | <sup>3</sup> Adder | ndum_NF                             | <u>annual_n</u>                                | ne   | Candidate member           |
|              |        |      | mber              | ship_fee         | s coun             | tries                               |  |  |                            |
| Total        |        |      |                   | <u> </u>         | 81                 | 91                                  | 81   | 71   |                            |



# Addendum\_SC\_scientific\_collaborat

- 1 Participation of Scientific Collaboration in the IPPOG Collaboration shall imply a strong commitment to participate in IPPOG recognized activities through providing access to data, expertise, tools and methods for outreach and educational purposes that are based on their physics program.
- 2 The membership fee asked from a Scientific Collaboration in IPPOG can be waived upon a written agreement between this Scientific Collaboration and IPPOG in form of an Addendum to the IPPOG MoU subject to decision made by IPPOG Collaboration Board in mutual agreement with the concerned Scientific Collaboration, specifying the exact areas of commitment relevant for its participating in IPPOG.
- 3 In general matters the minimum requirements are the following:
  3.1 Recognition of outreach as an important element of research activity.
  3.2 Recognition and support of those members of their collaboration who devote a considerable fraction of their time to educational and outreach efforts.
  3.3 Strong commitment to provide access to experimental data for IPPOG recognized educational and outreach activities, which implies developing and maintaining tools, methods and documentation to exercise analysis and scientific reasoning based upon the Scientific Collaboration's actual and continuing physics program.



### Addendum\_SL\_scientific\_laboratori United Bridge Lenging SL\_scientific\_laboratori es\_draft

- 1 Participation of Scientific Laboratories in the IPPOG Collaboration shall imply a strong commitment to participate in IPPOG and its recognized activities through substantial In-kind and monetary contributions enabling the sustainable success of IPPOG efforts. These contributions shall be mutually negotiated on an individual basis per Scientific Laboratory and agreed by the IPPOG Collaboration Board and the signing Scientific Laboratory.
- 2 The exact areas of commitment relevant for participating in IPPOG shall be specified in form of an Addendum to the IPPOG MoU between this Scientific Laboratory and IPPOG, which shall be subject to a decision made by the IPPOG Collaboration Board in mutual agreement with the concerned Scientific Laboratory.
  - 2.1 They may include contribution to the personnel needed to execute IPPOG coordination, development and expansion of the IPPOG Collaboration (e.g. IPPOG Scientific Secretary, IPPOG Administrative Secretary);
  - 2.2 They may include **contribution to logistics** for the IPPOG meetings when on their site;
  - 2.3 They may include support to **IPPOG website development and maintenance**;

2.4 They may include contribution to the personnel needed to organize and execute the IPPOG recognized activities relevant to the specific scientific program conducted by its hosted and recognized Scientific Laboratories IPPOG CB Meeting #1, Lisbon, 22 April 2017



### **Addenda Templates**

Addendum\_SL\_X\_Scientific\_Laboratory\_Terms\_of\_Participation\_Template\_draft Is not for vote, it is there for giving guidance for the negotiations with Laboratories who are potentially joining IPPOG. Comments to this document are very welcome !

The specific Addenda, specifying the agreed contributions from each single laboratory joining IPPOG will be subject to vote.

Addendum\_SC-X\_Scientific\_Collaboration\_Terms\_of\_Participation\_Template\_draft Is not for vote, it is there for giving guidance for the negotiations with Experiments who are potentially joining IPPOG. Comments to this document are very welcome !

The specific Addenda, specifying the agreed contributions from each single experiment joining IPPOG will be subject to vote.



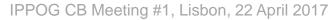
# Budget 2017





### **Budget – Expected Income**

| Cathegory           | Туре                                    | Detail | Detail | Contributor     | Year 2017 | 2018 and beyond |
|---------------------|---|--------|--------|-----------------|-----------|-----------------|
| Vembership fees*    | .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | Detail | Detail | Netherlands     | 3000      | 3000            |
| vicinitieranip reea |   |        |        |                 |           |                 |
|                     |   |        |        | Germany         | 5000      | 5000            |
|                     |   |        |        | Norway          | 3000      | 3000            |
|                     |   |        |        | Portugal        | 1000      | 1000            |
|                     |   |        |        |                 |           |                 |
|                     |   |        |        | Sweden          | 3000      | 3000            |
|                     |   |        |        | Switzerland     | 3000      | 3000            |
|                     |   |        |        | Slovak Republic | 1000      | 1000            |
|                     |   |        |        | Romania         | 1000      | 1000            |
|                     |   |        |        | Finland         | 3000      | 3000            |
|                     |   |        |        | CERN            | 5000      | 5000            |
|                     |   |        |        | Belgium         | 3000      | 3000            |
|                     |   |        |        | France          | 5000      | 5000            |
|                     |   |        |        | Poland          | 3000      | 300             |
|                     |   |        |        | Italy           | 5000      | 500             |
|                     |   |        |        | USA             | 5000      | 500             |
|                     |   |        |        | Australia       | 1000      | 1000            |
|                     |   |        |        | Spain           |           | 3000            |
|                     |   |        |        | Austria         |           | 3000            |
|                     |   |        |        | Israel          |           | 1000            |
|                     |   |        |        | Denmark         |           | 1000            |
|                     |   |        |        | South Africa    |           | 1000            |
|                     |   |        |        | Ireland         | 1         | 1000            |
|                     |   |        |        | Czech Republic  |           | 1000            |
|                     |   |        |        | Greece          |           | 1000            |
|                     |   |        |        | Hungary         |           | 1000            |
|                     |   |        |        | Bulgaria        |           | 1000            |
|                     |   |        |        | UK              |           | 500             |
|                     |   |        |        | Slovenia        |           | 1000            |
|                     |   |        |        |                 | 50000     | 6500            |







## **Budget – In-kind support**

| Category | Туре        | Detail               | Detail                  | Contributor      | Year 2017 | 2018 and beyond |
|----------|-------------|----------------------|-------------------------|------------------|-----------|-----------------|
| In-Kind  | Personnel   | Scientific Secretary |                         | CERN             | 1/2 FTE   | 1/2 FTE         |
|          |             | Secretarial/Access   |                         |                  |           |                 |
|          |             | support              |                         | CERN             | 0.05 FTE  | 0.05 FTE        |
|          |             | MC coordinator 1     |                         | Quarknet         | 1/2 FTE   | 1/2 FTE         |
|          |             | MC coordinator 2     |                         | CERN             | 1/2 FTE   | 1/2 FTE         |
|          |             | MC technical         |                         | Quarknet         | 1/2 FTE   | 1/2 FTE         |
|          |             | MC experimental      |                         | ATLAS, CMS,      |           |                 |
|          | Technical   | data                 |                         | ALICE, LHCb,     |           |                 |
|          |             | MC Interface, tools  | Ispy                    | CMS              |           |                 |
|          |             |                      | Minerva                 | ATLAS/UK         |           |                 |
|          |             |                      | Hypathia                | ATLAS/Greece     |           |                 |
|          |             |                      | Infrastructure          |                  |           |                 |
|          |             |                      | based on ROOT           | ALICE, LHCb      |           |                 |
|          |             |                      | Open data virtual       |                  |           |                 |
|          |             |                      | machine                 | CMS, ALICE, LHCb |           |                 |
|          |             | MC measurements      |                         |                  |           |                 |
|          |             | programme            | W-path                  | ATLAS/Norway     |           |                 |
|          |             |                      | Z-path                  | ATLAS/Germany    |           |                 |
|          |             |                      | J/Ψ-path                | CMS              |           |                 |
|          |             |                      | WZH-path                | CMS              |           |                 |
|          |             |                      | R <sub>AA</sub>         | ALICE            |           |                 |
|          |             |                      | D <sup>0</sup> lifetime | LHCb             |           |                 |
|          |             | MC website           |                         | Germany          |           |                 |
|          |             | IPPOG website        |                         | ·                |           |                 |
|          |             | (Drupal support +    |                         | CERN             |           |                 |
|          | Operational | MC Vidyo             |                         | CERN, Fermilab   |           |                 |
|          |             |                      |                         | ALICE, LHCb,     |           |                 |
|          |             | MC moderators        |                         | CERN, Fermilab   |           |                 |





| Cathegory                       |                                    | Detail | Year 2017 | 2018 and beyond |
|---------------------------------|------------------------------------|--------|-----------|-----------------|
| Infrastructure                  | Website                            |        | 20000     |                 |
| Project support<br>upon request | Cosmic Rays                        |        | 2000      |                 |
|                                 | Other projects                     |        | 5000      |                 |
| IPPOG prize                     |                                    |        |           |                 |
|                                 | Print materials                    |        |           |                 |
| Communication                   | (IPPOG book,                       |        |           |                 |
| Communication                   | leaflets, flyers,                  |        |           |                 |
|                                 | posters, etc)                      |        | 4000      |                 |
|                                 | Online platform,                   |        |           |                 |
|                                 | digital materials                  |        |           |                 |
|                                 | (social media -                    |        |           |                 |
|                                 | tools + content),                  |        |           |                 |
|                                 | IPPOG teaser                       |        | 2000      |                 |
|                                 | IPPOG meeting                      |        |           |                 |
|                                 | expenses upon                      |        |           |                 |
| Discretionary                   | request to host                    |        |           |                 |
| Discretionary                   | (local org.                        |        |           |                 |
|                                 | commitee; twice                    |        |           |                 |
|                                 | a year= 2x2000),                   |        | 5000      |                 |
|                                 | Office expenses                    |        | 1000      |                 |
| Conference                      | Travel +                           |        |           |                 |
| support                         | conference fees                    |        |           |                 |
| 54pp010                         | in exceptional                     |        | 6000      |                 |
| B Meeting #1, Lis               | Contingency<br>sbon, 22 April 2017 |        | 5000      |                 |

# Accessions to IPPOG





### **Expressed interest – Brazil**

**Marcelo Gameiro Munhoz**, Universidade de São Paulo, Brazil, member of the ALICE collaboration and member of the Education Committee of the Brazilian Physics Society contacted IPPOG for evaluating the possibilities for Brazil to join IPPOG.

After many discussions (face to face and e-mail), and exchange of MoU and draft addenda, Brazil has expressed their formal wish to join IPPOG formally.

### **IPPOG MoU**

3.11 Accession to membership shall be decided by the Collaboration Board by a two-thirds majority of the votes cast on the basis of a written application to the Chairperson of the Collaboration Board (the "Chairperson") and taking into account the principles governing eligibility to apply for membership set out above.





# **Brazilian Application to IPPOG**

### Brazilian National Network of High Energy Physics



# Brazilian Application to IPPOG



- The Brazilian HEP community has great interest and a large involvement with particle physics outreach activities
  - For instance, Brazil has a large participation in the Masterclasses Hands On Particle Physics
- The Brazilian HEP community wishes to become part of IPPOG in order to greatly improve the dissemination of particle physics nationwide



# **Brazilian HEP community**



- 16 institutions in 6 different Brazilian states (Brazil has 26 states in total)
- 120 faculties/researchers
- 70 graduate students
- 30 technical staff
- Participation in:
  - the four LHC large experiments and ALPHA experiment at CERN
  - Pierre Auger Observatory and Cherenkov Telescope Array
  - neutrino experiments (DUNE, Double Chooz, etc.)



# Brazilian National Network of High Energy Physics



- RENAFAE (Rede Nacional de Física de Altas Energias, in Portuguese)
  - is a National Network officially created by the Brazilian Ministry of Science and Technology in 2008 in order to coordinate the national effort in High Energy Physics
  - is composed by ALL Brazilian physicists that work with High Energy Physics
- Therefore, RENAFAE is the ideal organization to represent Brazil in IPPOG



# Brazilian National Network of High Energy Physics



- The Brazilian National Network of High Energy Physics (<u>http://mesonpi.cat.cbpf.br/renafae</u>)
   has four main objectives as part of its mission:
  - promote the scientific and technological advancement of the investigation of the properties of particles and their fundamental interaction
  - consolidate and expand research in high-energy physics, expanding scientific training and techniques needed to explore the resulting benefits of the associated developments and their technological implications
  - develop a program that mobilizes businesses in Brazil to work on the development of instrumentation of software for the area's international collaborations
  - The Scientific and Technical Committee of Renafae (CTC Renafae) will coordinate the activities of groups acting in high energy physics and in particular, activities associated with large international collaborations.





### **Further interests**

- **Turkey** Bilge Demirkos is coordinating and running Masterclasses in Turkey, and is interested to make Turkey a Member in IPPOG.
- **GSI/FAIR** Yiota Foka is with us here in Lisbon, well known to IPPOG through the ALICE Masterclass program, and is interested to bring GSI/FAIR closer to IPPOG.
- Belle II Toru Iijima and Zdenek Dolezal have been joining the previous IPPOG meeting at CERN in November 2016. They are waiting for the final addenda to the MoU, explaining the modalities for Collaborations to join.
- DUNE Mark Thomson, Spokesperson of DUNE, invited the IPPOG CT to a brownbag lunch at CERN, when DUNE hat its Collaboration meeting in January 2017. DUNE is highly interested in Outreach and IPPOG, but still in an early phase.