

Report on the JSA/HUGS International Fellowship for Graduate Students in Developing Countries 2016

To the attention of the Initiatives Fund Evaluation Committee

The 2016 JSA/HUGS International Fellowships were awarded to

- Ms. Sokhna Bineta Lo Amar, a PhD student at Cheikh Anta Diop University (Dakar, Senegal) working on pion photo production in the intermediate energy range of Jefferson Lab using GEANT4 under the co-direction of Dr. Paul Gueye.
- Mr. Rajesh Sangem, a PhD student at the Indian Institute of Technology (Bombay, India) working on unpolarized cross sections and single spin asymmetries in quarkonium production under the direction of Dr. Asmita Mukherjee.

Selection process

The fellowship was thoroughly advertised and as a consequence we received 16 applications from many countries: 7 from Mexico, 3 from Sudan, 2 from Ukraine, 1 from Algeria, 1 from Cameroon, 1 from India, and 1 from Senegal. The selection committee was composed by Alberto Accardi (HU & JLab), Rolf Ent (JLab), César Fernández-Ramírez (Mexico U.), José Goity (HU & JLab), Cynthia Keppel (JLab), Michael Kohl (HU & JLab), and Andrey Tarasov (JLab). After thorough consideration of the candidate applications, recommendation letters, financial need, and research interests we believed the best candidates were indeed Ms. Sokhna Bineta Lo Amar and Mr. Sangem Rajesh.

Budget, leveraged support and matching resources

The awarded \$4700 have been allocated as follows:

- \$1,236.96 spent on flights Dakar-New York JFK-Norfolk and Norfolk-New York JFK-Dakar for Ms. Sokhna Bineta Lo Amar
- \$430.36 for 1 week lodging at the Residence facility for Ms. Sokhna Bineta Lo Amar
- \$108.03 for meal expenses for Ms. Sokhna Bineta Lo Amar
- \$2209.91 spent on flights Bombay-Paris CDG-Atlanta-Newport News and Newport News-Atlanta-Paris CDG-Bombay for Mr. Sangem Rajesh

- \$430.36 for 1 week lodging at the Residence facility for Mr. Sangem Rajesh
- \$160.12 for visa expenses for Mr. Sangem Rajesh
- \$91.26 for meal expenses for Mr. Sangem Rajesh
- \$33.12 for ground transportation expenses for Mr. Sangem Rajesh

Hampton University contributed a total of \$3,660.00:

- \$1,230.00 for 3 weeks lodging at the Residence facility for Ms. Sokhna Bineta Lo Amar
- \$1,230.00 for 3 weeks lodging at the Residence facility for Mr. Sangem Rajesh
- \$600.00 for meal expenses for Ms. Sokhna Bineta Lo Amar
- \$600.00 for meal expenses for Mr. Sangem Rajesh

Fellows activities

During the first three week of their stays at JLab, Ms. Sokhna Bineta Lo Amar and Mr. Sangem Rajesh attended the HUGS lectures and participated in all activities within the school, including scheduled social meetings with the lecturers and delivering short presentations in front of her fellow attendees to HUGS. As supplemental material, we enclose the reports by Ms. Sokhna Bineta Lo Amar and Mr. Sangem Rajesh on their stay.

Ms. Sokhna Bineta Lo Amar activities

After HUGS, Sokhna Bineta Lo Amar stayed an additional week at JLab fully funded by the fellowship to interact with researchers. Ms. Lo Amar was provided with office space in the Theory Center where she could work and interact with JLab researchers:

- She gave a seminar at the Theory Center on Monday June 22, 2016, entitled "Meson Photo-production in GEANT4 for $E_\gamma = 0.15 - 3$ GeV". Her seminar was scheduled at the beginning of the week to facilitate interactions with researchers at JLab in the forthcoming days.
- She had meetings with the following researchers:
 - José Goity (HU & JLab Theory Center)
 - Paul Gueye (HU)
 - Pavel Degtiarenko (JLab, Radiation Control Group)
 - Igor Strakovsky (GWU)

Ms. Amar established plans to come back for sort an medium term visits to continue the collaboration he established with Dr Gueye and Goity.

Mr. Rajesh Sangem activities

After HUGS, Sangem Rajesh stayed an additional week at JLab fully funded by the fellowship to interact with researchers. Mr. Rajesh was provided with office space in the Theory Center where most of his activities took place:

- He gave a seminar at the Theory Center on Monday June 22, 2016, entitled Linearly Polarized Gluons in J/ψ and Upsilon Production. Her seminar was scheduled at the beginning of the week to facilitate interactions with researchers at JLab in the forthcoming days.
- He had meetings with the following researchers:
 - Alberto Accardi, (HU & JLab Theory Center)
 - Ted Rogers (ODU & JLab Theory Center)
 - Andrey Tarasov (JLab, Theory Center)

Mr Sangem had interestign exchanges with Ted Rogers, and Alberto Accardi, and expressed interest in collaborating with the latter to extendi his research on the effects of longitudinally polarized gluons in proton-proton collisions to proton-nucleus collisions.

Final considerations

The quality of the candidates was outstanding and awarding the fellowships proved to be a difficult task. Nevertheless we believe we selected the best candidates and that we gave Ms. Sokhna Bineta Lo Amar and Mr. Sangem Rajesh an opportunity for learning and career enhancement that otherwise would have not been available to them. We are very pleased that they really took advantage of the possibility to present a seminar at the Theory Center, intensely discuss with JLab researchers, and lay the groundwork for future collaborations. In our estimation this initiative has been very successful and has met all the objectives of the proposal.

Sincerely,



Alberto Accardi, PI