

# Charter for the Bonstein prize in Loop Quantum Gravity

## Preamble

During the celebration of 25 years of Loop Quantum Gravity at Loops 11 conference in Madrid, a prize for post-doctoral scholars in Loop Quantum Gravity was created by a governing board consisting of: Abhay Ashtekar, Fernando Barbero, John Barrett, Alejandro Corichi, Ghanshyam Date, Laurent Freidel, Rodolfo Gambini, Viqar Husain, Jerzy Lewandowski, Yongge Ma, Guillermo Mena-Margugan, Jorge Pullin, Carlo Rovelli, Lee Smolin, Thomas Thiemann and Madhavan Varadarajan.

The prize is named after *Matvei Petrovich Bronstein*, who was the first to emphasize that quantum gravity requires a deep revision of classical space-time concepts. He wrote his Ph.D. thesis on Quantization of Gravitational Waves in 1935. He clearly understood the limitation of applying the Bohr-Rosenfeld QED measurement analysis to gravity. He derived the quantum analog of Einstein's quadrupole formula but emphasized the need to go beyond linearized gravity. He was considered by many as the brightest of the young Soviet physicists in the mid-1930's. He was arrested on trumped-up charges in 1937 and executed in 1938. An account appears in <http://www.chukfamily.ru/Lidia/Biblio/House.htm>

The prize will be given at the Loops 20XX conferences. It will carry a certificate and a monetary reward, initially set at \$1,000. Eligible candidates will be those who hold (non-faculty) post-doctoral positions at the time of the nomination deadline. The primary criterion will be high quality of scientific results in loop quantum gravity, interpreted in the broadest sense, creativity and originality, and the significance of results to the field as a whole.

## Governance

The initial Governing Board will be augmented from time to time with new members from the community of senior scientists who are actively engaged in loop quantum gravity research through sustained contributions at least for the previous 5 years. Any member of the Board can make nominations to one of the joint Chairs during the year before the next Loops conference. The member will be added if approved by a 2/3 majority of the Board.

By rotation, five members of the Board will serve as the selection committee for the prize. For the first round the committee consisted only of 4 members, Madhavan Varadarajan, Thomas Thiemann, Carlo Rovelli and Lee Smolin. The committee will elect a Chair who will oversee the deliberations but not vote in the initial round. If the vote is unanimous or 3-1 among the other 4 members, the decision will be final. If it is split 2-2, then the committee Chair will break the tie. The Chair will inform Abhay Ashtekar so he can make arrangements for the certificate and prize funds. Two members, including the Chair, will be rotated off after each round, replaced by two new members. Generally an anti-alphabetical cyclic order will be used, but the joint Chairs may modify this slightly

to ensure thematic balance. The selection committee is encouraged to consult members of the full Governing Board to get additional input on candidates.

Joint Chairs, initially Abhay Ashtekar, Jorge Pullin, Lee Smolin and Carlo Rovelli, will ensure the general administration of the prize, including its financial aspects.

Approximately 6 months before a Loops 20XX conference, the joint Chairs will send out a call for nominations. The selection committee will make the decision approximately two months before the conference. Generally there will be only one winner but in truly exceptional cases two candidates can be awarded the prize in a given round.

It is expected that the winners will accept the prize in person but in exceptional cases it can be awarded in absentia.

### **Nomination Procedure**

The nominee should hold a (non-faculty) post-doctoral positions at the time of the nomination deadline. The primary criterion will be high quality of scientific results in loop quantum gravity, interpreted in the broadest sense, creativity and originality, and the significance of results to the field as a whole. The nomination packet should consist of:

- i) A 1 page nomination letter summarizing the specific achievements to date of the nominee;
- ii) A complete CV and a publication list of the nominee;
- iii) 1-2 letters of support from experts emphasizing the broad significance of all research contributions to date of the nominee; and,
- iv) A proposed citation. Self nominations will not be considered. The entire packet should be bundled into a single PDF file and e-mailed to the address specified in the call for nominations.