

FIRST YEAR OF KOVALEVSKAIA GRANTS IN SOUTHERN AFRICA

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On 26 November 2014 in Victoria Falls, Zimbabwe, the Southern Africa Mathematical Sciences Association (SAMSA) gave out its first Kovalevskia Research Grants. According to the agreement between SAMSA and the Kovalevskia Fund, two awards worth US\$2500 each will be given every two years, one in pure and one in applied mathematics.

The 2014 awardees are Beth Kiratu and Dr. Theresia Marijani. Beth Kiratu is studying functional analysis, and is expecting her PhD from the University of Nairobi in Kenya in 2016. Her research is devoted to generalizing and extending the existing results on the Weyl spectra of higher classes of operators on a Hilbert space.

Dr. Marijani received her PhD in 2012 from the University of Stellenbosch, which is near Cape Town, South Africa, and is currently on the faculty at the University of Dar es Salaam in Tanzania. She works in mathematical biology, with her main focus on applying statistics and mathematical modeling to malaria. Dr. Marijani has mentored an unusually large number of Masters students, including several women.

The Kovalevskia Grants Committee is chaired by Prof. Sandile Motsa of the University of Kwazulu-Natal in Durban, South Africa. The other members are Profs. Levis Eneya of the University of Malawi (former president of SAMSA); Farai Nyabadza of the University of Stellenbosch (current president of SAMSA); and Stanford Shateyi of the University of Venda in South Africa.

On November 26 I had a productive and informative meeting with the Committee. At the beginning of the Kovalevskia Grants project the biggest challenge is to publicize it among young women in a region that is vast and diverse — ranging from Kenya in the northeast to Namibia in the southwest. We discussed several ways to improve the visibility of the awards and get more applications:

1. Send extensive information about the competition and about the 2014 winners to the three universities (Stellenbosch, Dar es Salaam, and Nairobi) where the winners have studied or worked.
2. Put this information on the SAMSA website and send it to all institutional members of SAMSA.
3. In communication with SAMSA members and others, emphasize that nominations are welcome, and that senior researchers and supervisors should play an active role in encouraging their junior women colleagues to apply.
4. Offer a free 1-year individual membership in SAMSA to any woman who submits a complete application. (This would remove an obstacle that might have discouraged some, namely, that the Kovalevskia Grant winners must be SAMSA members.)
5. Ask for help from the South African Math Society (the math society for the country South Africa, not the region) in publicizing the awards among their members.

SAMSA's most important tie to the U.S. is through its partnership with Auburn University in Alabama, which takes the form of the Masamu project. Masamu (which means 'mathematics' in southern Africa) has for the past 5 years been working with SAMSA to develop research collaboration with Americans and also math workshops attended by both African and American graduate and undergraduate students. This year the largest group consisted of 9 students (7 male and 2 female) from Mzuzu University in northern Malawi. One of the faculty accompanying them was an old friend, Busiso Chisala, who had been at the University of Zimbabwe when Ann and I visited that institution on our first trip to Africa in 1993.

The leader of Masamu — and the person who has served as intermediary and facilitator for the Kovalevskia Fund's collaboration with SAMSA — is the Auburn University mathematician Overtoun Jenda, who is currently Associate Provost for Diversity and Multicultural Affairs at Auburn.

In my invited talk at the conference dinner, I contrasted the type of carefully crafted collaborations developed by well-informed Americans such as Dr. Jenda (who is from Malawi originally) with the clumsy and ill-conceived "aid" programs typically developed by such Western institutions as the World Bank, USAID, and the Bill and Melinda Gates Foundation. I mentioned two recent examples of efforts by African scientists — one in mathematics and one in agriculture, the first one successful and the second one not — to dissuade the funders from pursuing a misguided course.

Last August Dr. Jenda and SAMSA President Eneya traveled to the International Congress of Mathematicians (ICM) in Seoul, South Korea, in order to meet with key people involved in a proposal to initiate annual Africa-wide math congresses. This idea was being promoted by the University of Michigan and had

attracted the likely support of the World Bank, but there had been no prior consultation with SAMSA, which is the strongest regional math organization in Africa. In Seoul the proposal was presented at the symposium on Mathematics in Emerging Nations: Achievements and Opportunities for possible sponsorship through the ICM. Fortunately, Drs. Jenda and Eneya managed to convince the key people in Seoul that the only viable way to organize annual meetings in Africa was regionally (although a congress of the African Mathematical Union is held every four years), that the proposal would undermine and weaken SAMSA, and that it would be a misuse of funds. The proposal was not selected for funding.

In October a group of agriculturalists from several countries of Africa traveled to Seattle to meet with officials of the Gates Foundation, which is headquartered in Seattle and is the wealthiest foundation in the world. They hoped to get them to reconsider their “Green Revolution” project in Africa, on which they had already spent more than a billion dollars. The “Green Revolution” approach, which is based on U.S. industrial farming technology (monoculture, massive use of herbicides and pesticides, heavy capital investment), has been widely criticized because of the unintended socioeconomic consequences (forcing small farmers to abandon the land) and incalculable long-term damage to public health and the environment. The *Seattle Times* gave very favorable coverage to the African delegation, who were not, however, able to make progress with the Gates Foundation. As a private non-profit with fabulous wealth, the Gates Foundation is accountable to no one.

The Kovalevskaja Fund is also a private non-profit, but one without much wealth. I like to say that “poverty keeps us honest.” We rely heavily on the voluntary labor of scientists and women’s advocates in the countries where we have projects. If we were to foolishly try to export to some Third World country an American way of doing things that is unsuitable there, nothing would happen — it simply wouldn’t get done. People would not devote their time and energy to a project that they knew would be unproductive or even counter-productive in their country.

In contrast, the Gates Foundation is at a disadvantage because it does not have poverty to keep it honest. It can pay the salaries of thousands of people in order to implement whatever idea suits the fancy of foundation officials, who have no accountability. It takes courage — as in the case of the delegation of agriculturalists who visited Seattle — to speak truth to power. It is not easy to say “No!” to a billion dollars.