Summary:
- Support Uganda's participation the International Mathematical Olympiad 2019 in Bath, England.
- Oversee their team selection process and the practical logistical details for the trip to England.
- Enhance Uganda's (and Africa's) visibility in the mathematical community through good results in the IMO. Support selection and nurturing procedures for tomorrow's scientific leaders of sub-Saharan Africa.

I want to strengthen participation in the IMO for teams from developing sub-Saharan African countries like Uganda. The IMO (https://www.imo-official.org/default.aspx) is the leading international math competition for high-school students taking place annually since 1959.

Sub-Saharan countries started attending the IMO's in the past 10 years. Poverty prevents them from attending regularly, from training students, and from organizing a comprehensive selection process. The crucial step is participation; if this is not certain, those poor countries will give up specialized IMO training and neglect the national Olympiads, the typical selection mechanism for the IMO.

In spite of material difficulties, and contrary to widespread prejudice, sub-Saharan students obtained some notable results in the IMO's. Many of them obtained partial credit for certain problems, and some even solved completely one problem out of 6. I want to stress that, given their lack of previous experience and specialized training, this is an extraordinary achievement: the vast majority of high-school students AND teachers in the world would get a non-ambiguous flat zero grade in any IMO. These African students performed better than 99,999 percent of their peers in the same age group in the developed world.

Myself a former participant in the IMO, I was part of the scientific coordination team of the 59th IMO held in Cluj-Napoca, Romania, in July 2018. In this circumstances I made aquaintance with the leader of the Uganda team, Mr Okello Jasper, a high-school teacher affiliated also with the Makerere University.

Uganda is a poor country with a GDP/capita of only 670 USD yearly. Participation in the IMO cost them more than 1000 USD/student for the transcontinental flight, the local transfer flight and the visa. They had to pay for instance about 80 USD for each visa, for which they had to travel in person to the neighbouring country of Rwanda. Since the visa was issued late, they had to book an expensive last-minute flight from Bucharest to Cluj-Napoca for their team of 8 comprising 6 students and 2 leaders. Their budget was so strained that they were on the point of giving up their trip, were they not offered free local accomodation and meals by the organizers.

Despite such hurdles, participation in the IMO is extremely important for the development of mathematical sciences in countries like Uganda. It is one of those little steps which can, in the long term, change the fate of an entire country. Ugandan leaders certainly understand this, as they pay almost 1 millionth of their country GDP solely for the logistics of IMO participation (as proportion in the GDP, the equivalent for the UK would be Euro 3M taxpayer money).

The 60th IMO will take place in Bath, England, in July 2019: https://www.imo2019.uk/
Thanks to this grant, I would like to help make sure that the Uganda team can attend the IMO, and also that they can book their travel tickets in advance, saving unnecessary expenses for other more useful activities like paying for specialized trainers.

Outline:
- As soon as I win the grant: establish contact with the Ugandan authorities through Mr Okello Jasper
- April 2019: request their report about selection of the team.
- May-June 2019: Assist them with the visa procedures, possibly advancing some money for the visa to speed up the process, but also applying for a visa fee waiver with the UK Embassy.
- May-June 2019: As soon as they get their visa, request to see their flight reservation and wire the remaining grant amount (preferably directly to the airline, to avoid any suspicions).

Total budget around 9840 USD, of which:
- Visa 640 USD
- International flight 8000 USD
- Local transfer 800 USD
- Travel insurance 400 USD
* Grant contribution: 4000 USD
* Co-financing from the Ugandan authorities: about 5840 USD.

About myself: http://www.imar.ro/~sergium/
I am a professional mathematician with 20+ years of experience in research and higher education with a PhD from MIT (1999). I work in Bucharest, Romania as a researcher at IMAR. I have a current research grant of around 200.000 USD, however none of it may be used for the type of expenses I describe here.
I participated in two IMO's in 1990 and 1991, winning a perfect score in the latter. I believe that mathematical education is the key to succes in the 21st century, for the developed as well as for the poorest countries of the world. As a Romanian student in the 1990's, I benefitted myself from scholarships from richer countries which greatly facilitated my education. I wish that the excellent students of today's poor countries get the same type of help I got at their age, encouraging them to pursue a career in mathematics.

If awarded this grant, it will be managed through IMAR's financial services. Based on legal regulations, we must pay bank wire transfer fees from the grant itself. Other than that, no part of the grant will be used by myself or my institution; all of it will go directly towards paying Uganda's participation in the IMO in the form of plane tickets and visa fees.