

Towards a new model for regional and inter-regional collaboration for strengthening capacity in mathematical research in Africa

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Abstract

The paper assumes that the importance of an effective mathematical research community for sustainable development in Africa is widely acknowledged. However, it is demonstrated that the level and structure of mathematical research are particularly weak in most African countries.

Three existing models, a traditional, a Swedish and an International one, for strengthening research capacity in mathematics are discussed and a new model is proposed. It is pointed out that the first of these models, the traditional one, which has been pursued by most African governments for decades has failed. The other three models rely in a fundamental way on non-African agencies/organizations. The advantages and limitations of each of these models are outlined,

The proposed new model is Pan-African, involves the collaboration of an African university and a prestigious western university with strong graduate programme in mathematics and is externally funded. It is further argued that without inter-regional collaboration, research capacity in mathematics will remain weak in most African countries for the foreseeable future.

Inter-regional collaboration is, at best, a temporary measure and its results are not necessarily sustainable. The paper concludes with a brief discussion of sustainability of robust research capacity in the continent. The role of regional collaboration in this respect is highlighted. It is further suggested that the proposed model may be relevant to other disciplines.