



China-Africa Seminar on Cooperation in Mathematical  
Research and Education



# A New Era for Mathematics, Driven by a Strategic Partnership Between China and Africa

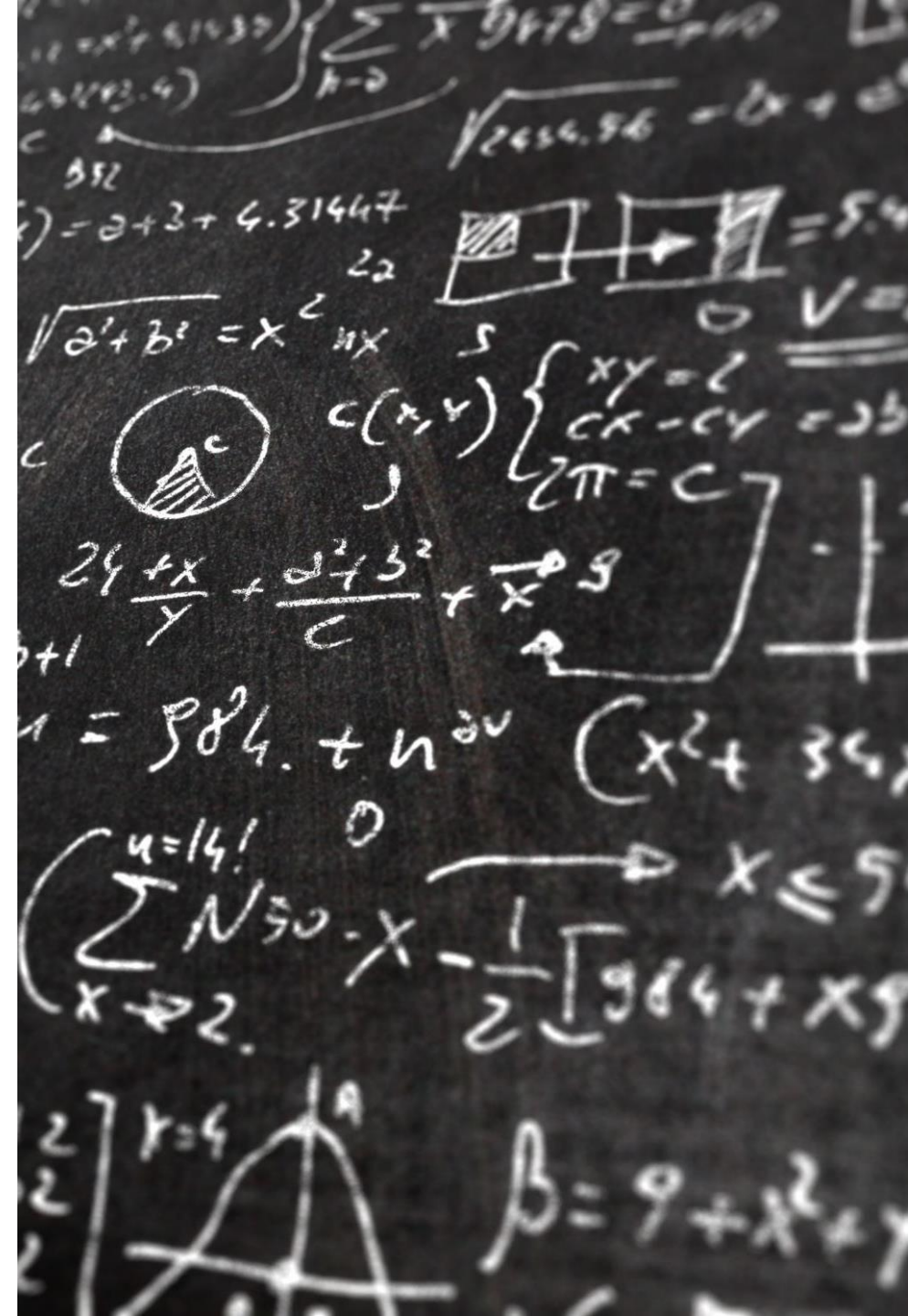
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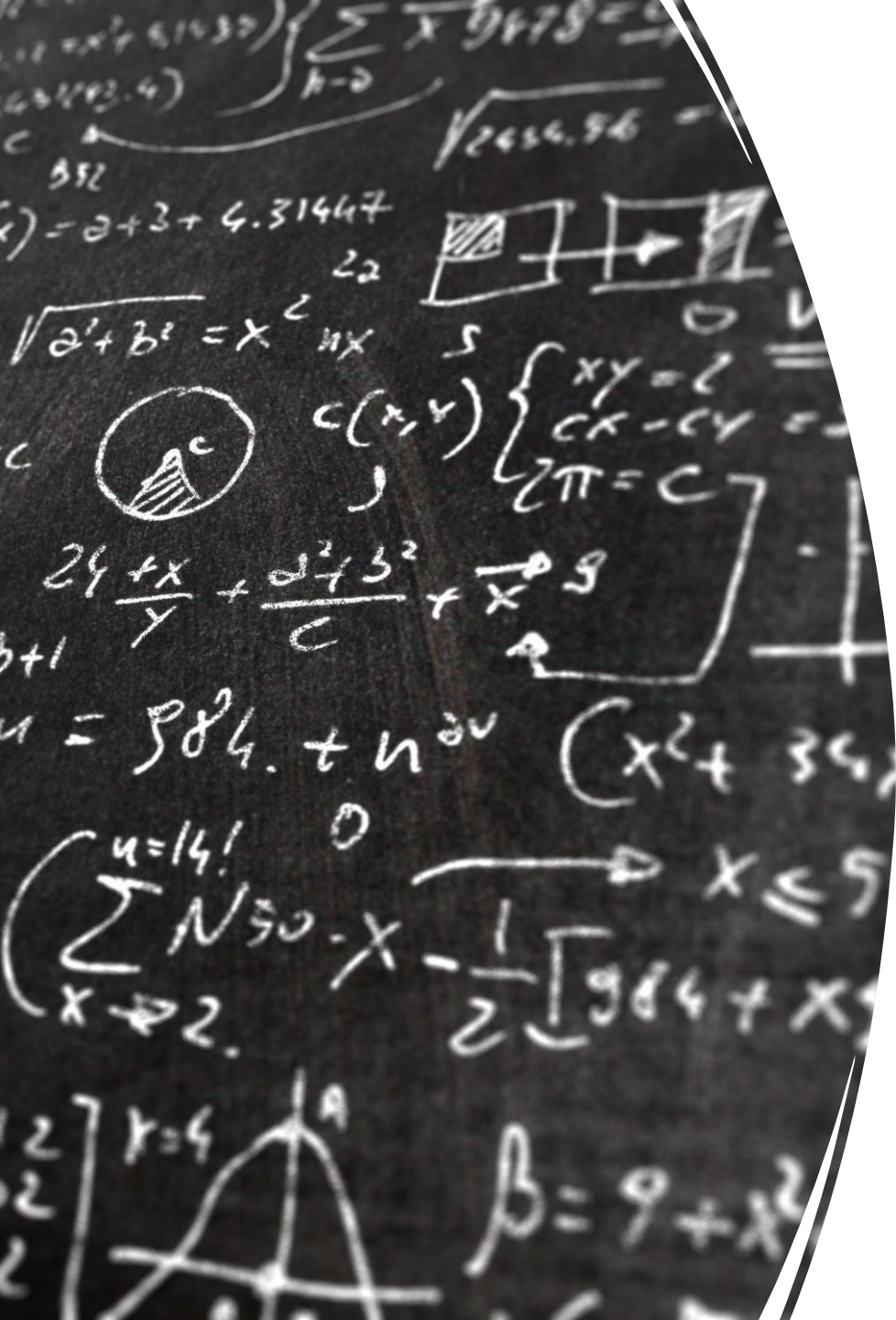
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## Introduction

In this presentation, we seek to outline the vision of the African Mathematical Union (AMU) regarding cooperation in mathematical research and education between China and Africa.





How can the convergence of two complementary forces open **a new and inspiring chapter** in the global history of mathematics?

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**Africa**, a continent that is young, vibrant, full of potential, creativity, and scientific ambition.

**China**, a nation that has risen, in only a few decades, to a leading global position in science, technology, and innovation.

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This cooperation is rooted in a **long-standing historical friendship**, strengthened by solidarity, mutual respect, and the principle of **win-win collaboration**.

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It is founded on the belief that **scientific progress grows through shared knowledge, trust, and the recognition of talent across both continents**.

- **Part 1: The Two Pillars of This Partnership**



This partnership is supported by two essential pillars:

**Africa's youth and China's scientific and technological experience.**

## **1.1 China: A Trusted Partner**

Over the years, China has demonstrated that it is a strategic and reliable partner for Africa.

This partnership has materialized in several key areas:

Infrastructure development

Public health

Basic and higher education

Technical and professional training

This consistency confirms China's role as a **partner of confidence**.

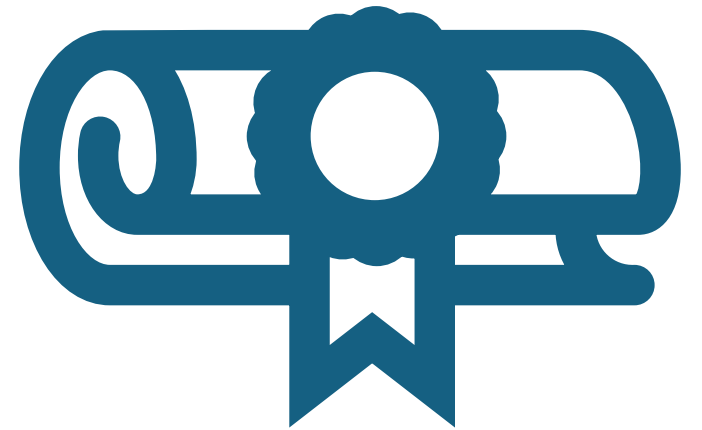


## 1.2 Africa: Young, Dynamic, and Eager to Learn




- More than **60%** of Africa's population is under 25 years old. This is more than a demographic fact — it is **a unique source of energy and creativity.**
- This youth:
  - Learns quickly,
  - Innovates,
  - Looks toward the future.

- It expresses itself:
  - In **university classrooms**,
  - In **science clubs**,
  - In **regional and continental mathematics competitions**,
  - And increasingly in **African tech entrepreneurship**.
- These young minds are motivated by a desire to learn, innovate, and contribute to their continent's development. They represent **the driving force of the future of African mathematics**.



## 1.3 China: A Recognized Leader in Science and Technology

- China has built:
    - Universities of international standing,
    - State-of-the-art research laboratories,
    - A globally recognized capacity for innovation
  - It is able to share:
    - Expertise in **applied research**,
    - Experience in the **popularization and democratization of science**,
    - A strategic vision for **technological and industrial development based on mathematics**.
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# **Part 2: The African Mathematical Landscape**

## 2.1 A Mosaic of Talents

African mathematics is not a uniform block. It is a **mosaic of scientific traditions, research schools, laboratories, and regional dynamics.**

From Rabat to Cape Town, from Dakar to Nairobi, Africa hosts:

- Centers of excellence,
- Researchers of international reputation,
- Teams producing high-level work in pure and applied mathematics.

## 2.2 The Structuring Role of the AMU

Founded in 1976, the AMU coordinates and strengthens the African mathematical ecosystem. Its key initiatives include:

**Pan-African Mathematical Olympiads (PAMO)**  
– Identifying and encouraging talent from the secondary level.

***Afrika Matematika***, published by **Springer**  
– A major platform for African mathematical research.



### **Specialized Commissions**

- Mathematical education
- Women in mathematics
- History and heritage of African mathematics
- Advanced research and collaboration

### **African Mathematical Schools (AMS) in partnership with CIMPA**

- High-level master's and doctoral training programs.
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Through these initiatives,  
the AMU is a **credible,  
structured, and durable  
institutional partner.**

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# Part 3: A Win–Win Partnership

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## 3.1 A Partnership Based on Equality

- This cooperation is not a “teacher–student” model. It is a **strategic partnership between equals**, grounded in respect and shared benefit.
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## 3.2 Benefits for Africa

- Strengthening scientific and pedagogical capacities
- Access to advanced digital and research technologies
- Development of **co-supervised doctoral programs**
- Establishment of **China–Africa Centers of Excellence**
- Production of solutions tailored to African needs:
  - Agricultural climate modeling
  - Optimization of health systems
  - Water resource and environmental management

## 3.3 Benefits for China

- Access to a **dynamic reservoir of young scientific talent**
- New research challenges and innovation opportunities
- Reinforcement of its role as a **global scientific leader**
- Long-term relationships with **future African scientific and technical elites**



# Conclusion: Building the Future Together

- The “new era of China–Africa mathematics” is not a slogan. It rests on:
    - A **solid historical friendship**,
    - The **convergence of Africa’s youth and China’s experience**,
    - The **structuring role of the AMU**.
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Our shared objective goes beyond mathematical theory.

It aims to **train a generation of scientists capable of addressing the challenges of the world**, whether in Lagos, Cairo, Beijing, or Paris.

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By uniting our strengths, China and Africa can make mathematics a **powerful engine of sustainable, intelligent, and inclusive development**.



**Thank you.**

