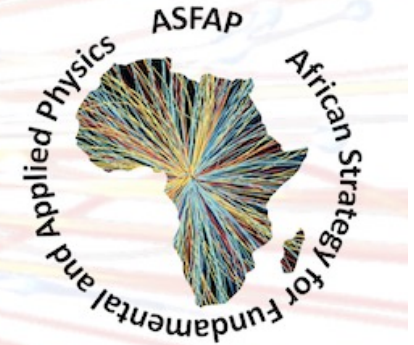


African Strategy for Fundamental and Applied Physics



COMMUNITY TOWN HALL

THEORETICAL AND APPLIED MECHANICS WORKGROUP

Conrad Bertrand Tabi

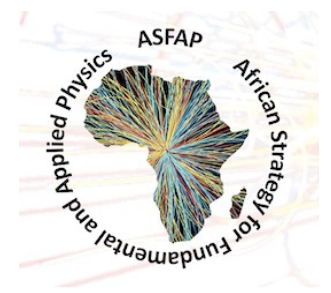
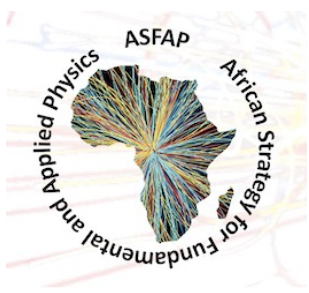
Botswana International University of Science and Technology, Botswana

and

Timoléon Crépin Kofané

University of Yaoundé I, Cameroon

Wednesday, July 14th 2021



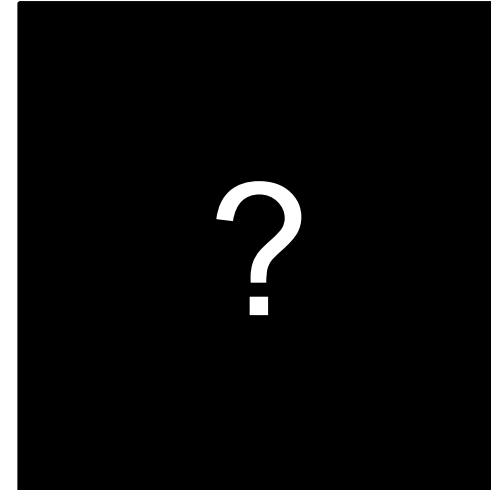
GROUP CONVENERS

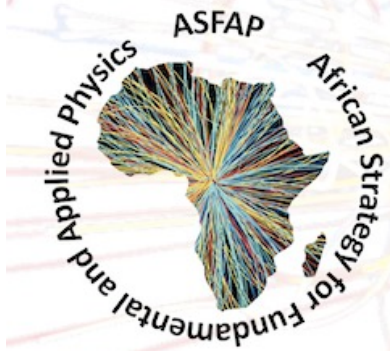


Conrad Bertrand Tabi
Botswana International
University of Science
and Technology,
Botswana

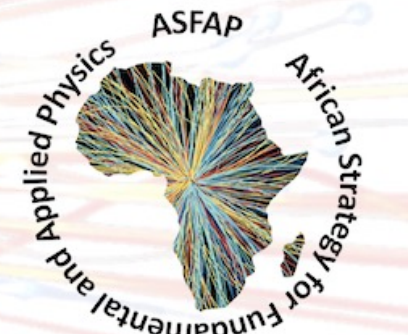


Timoleon Crepin Kofane
University of Yaounde I
Cameroon

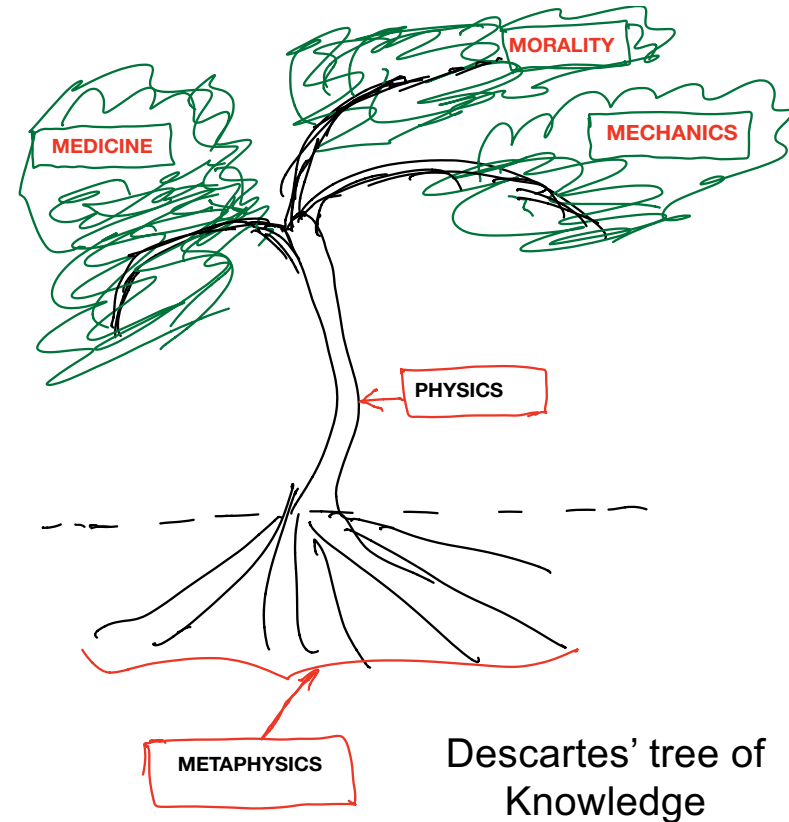




African Strategy for Fundamental and Applied Physics

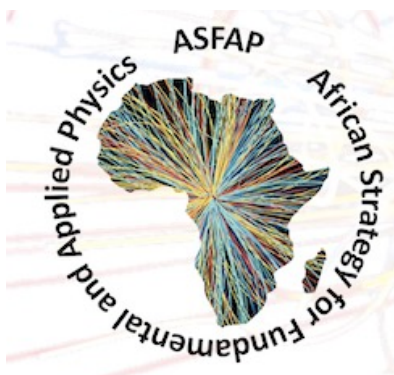


“All philosophy is like a tree, whose roots are metaphysics, the trunk is physics, and the branches which come out of this trunk are all the other sciences which can be reduced to three main ones, namely medicine, mechanics. and morality; I mean the highest and most perfect morality, which, presupposing full knowledge of other sciences, is the last degree of wisdom”^[1]

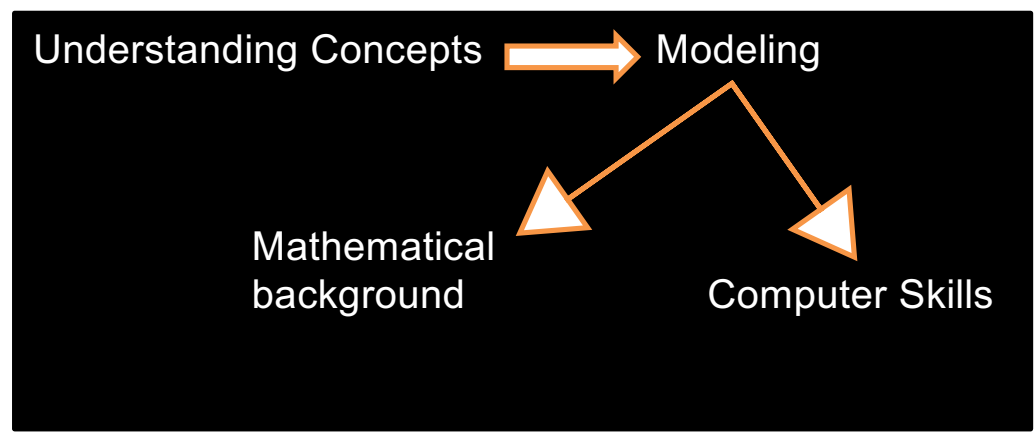
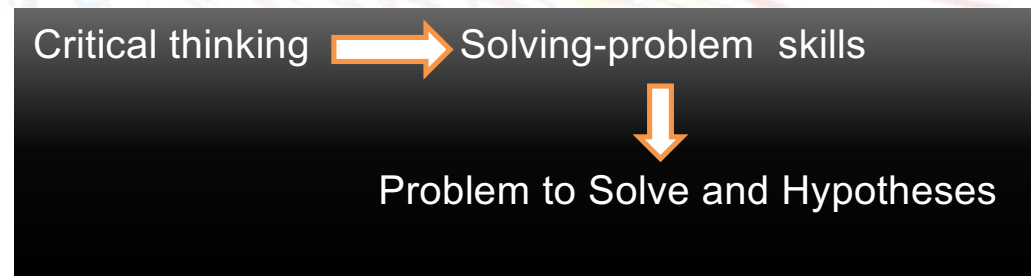
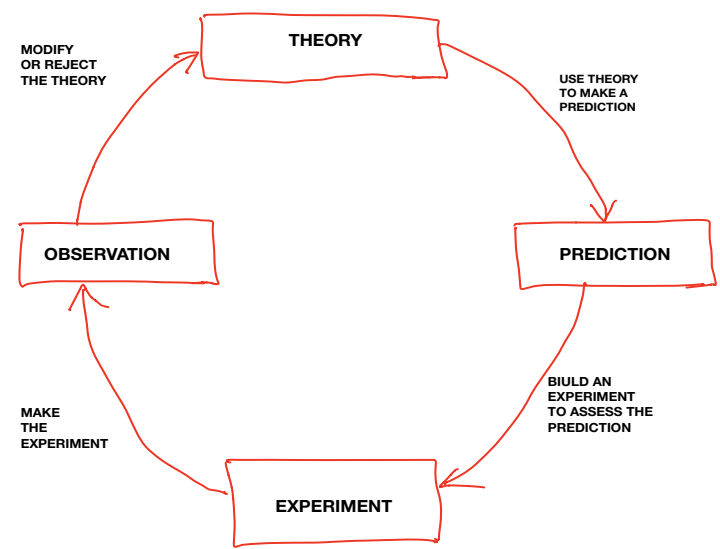
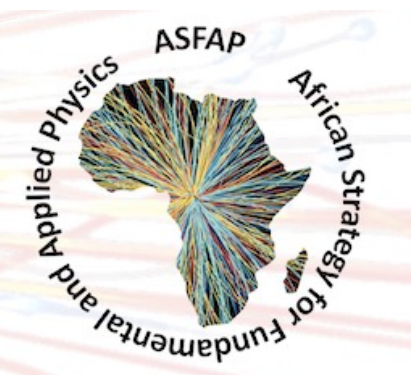


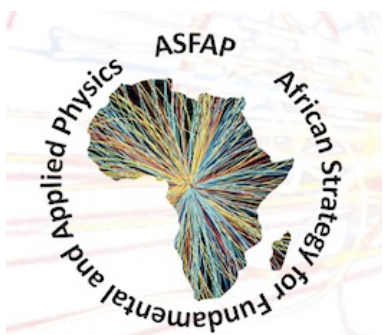
Descartes' tree of
Knowledge

[1] Descartes, *Les principes de la philosophie*, « Lettre-préface », in *Œuvres de Descartes*, IX-2, Paris, CNRS-Vrin, 1989, p. 14 (abréviation : AT, suivi des numéros du volume et de la page)



African Strategy for Fundamental and Applied Physics





Biomechanics

Solid Mechanics

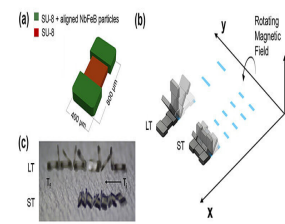
Micro- and nano-structures dynamics



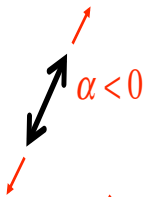
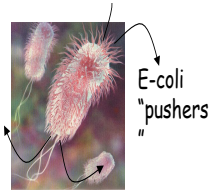
Fluid-structure interaction in a network of blood vessels



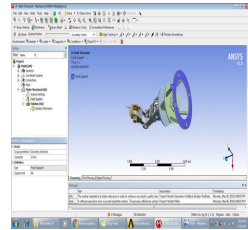
Understanding of forces and moments on 3D objects



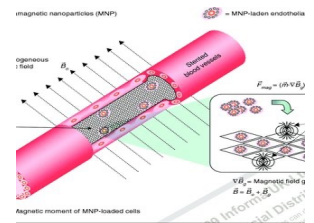
Moving micro-robots



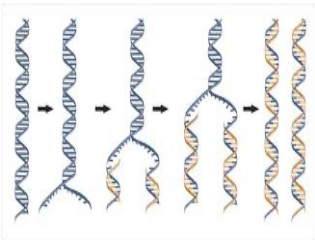
Dynamics and self-organization of active particles



Vibrational Analysis of solids



Magnetic targeting for site-specific drug delivery



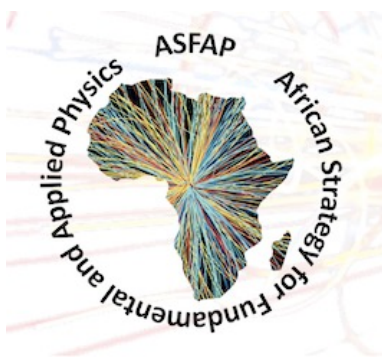
Dynamics of DNA Replication and Transcription

Dynamical Systems (Mechanical and electrical)

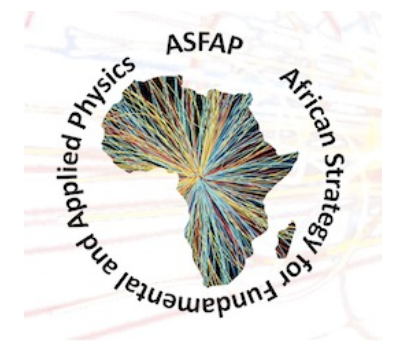
Computer Modeling

Mechatronics





WORK STRATEGY



WP1: Identify the working groups in Africa and African scientists in the field all over the world.

WP2: Send out Invitations and keep advertising to embark more people

WP3: Form workgroups, assign tasks and come out with an activity timetable

THEORETICAL AND APPLIED MECHANICS WORKGROUP



COMPLEX SYSTEMS WORKGROUP