



# SCIENCE WITH JAZZ SEMINAR SERIES

"Where Science and Jazz combine"



**21 MAY**  
Thursday 2026



**17h00**



Howard College Theatre,  
UKZN Howard College Campus

**SPEAKER:**

Professor Beatriz G. de la Torre, Chemist, KRISP, UKZN

**TOPIC:**

**When Green Is not Simple: Water as a Solvent**

**JAZZ ARTIST:**

**Dr Sibusiso "Mash" Mashiloane**  
(pianist, composer, University of KwaZulu-Natal)

**THEME: SOUNDING HOME - A Practice-Based Dialogue with Bheki Mseleku's Harmony Cycles**

**SYNOPSIS:** Over the past two decades, growing concern about climate change has influenced the chemical industry's practices. Regulatory agencies have imposed restrictions and bans on certain solvents, prompting the industry to replace those that are hazardous to human health and the environment with safer, more sustainable alternatives. Guidelines for identifying green solvent options often highlight water as the most environmentally friendly choice. This is well justified: water is not derived from fossil resources, is non-toxic and non-flammable, and does not emit volatile compounds that could harm workers. However, additional factors need to be considered, and these will be explored in this talk.



**Sounding Home: A Practice-Based Dialogue with Bheki Mseleku's Harmony Cycles**

This presentation explores the concept of home as a sonic and embodied experience in South African jazz, through a practice-based engagement with the music of Bheki Mseleku (1955–2008).

Mseleku's compositions, particularly his Meditation Suite (1992), are structured around harmonic cycles: recurring chord sequences that move through all twelve keys, each shift producing a distinct emotional and tonal quality. These cycles are not merely formal devices. They enact a process of spiritual and musical searching, a way of moving through sound toward something felt but not fixed. Taking musical practice as the primary site of inquiry, this presentation argues that home, in South African jazz, is not a place to be described but a condition to be sounded. It is realised through the act of playing, through rhythm, repetition, feel, and the bodily knowledge that musicians carry from the communities and traditions that shaped them.

While Mseleku's work articulates home through a cosmological and spiritual framework, this presentation places that orientation in dialogue with a township-informed, lived South African musical practice. By foregrounding musicking, the act of doing, as method, it positions performance as a site where memory, identity, and belonging are negotiated in real time.

In the context of this seminar's shared focus on cycles, the presentation invites a cross-disciplinary reflection: just as water cycles through states of transformation, Mseleku's harmony cycles move through keys and emotional registers, returning and renewing without arriving at a single fixed point. Home, like water, is not static. It circulates.



**BEATRIZ G. DE LA TORRE** obtained her Ph.D. from the University of Barcelona (Spain). After a dilated career in Spain, she is presently a research Professor at KRISP, College of Health Sciences, University of KwaZulu-Natal (Durban, South Africa). She has been working extensively on glyco, nucleo-, and lipopeptides. Her scientific interests are focused more on the discovery of new antimicrobial peptides, including those for fighting tuberculosis, peptide-based vaccines, and peptide-based drug-delivery systems. Lastly, she is also deeply involved in developing GREEN Solid-Phase Peptide Synthesis Strategies.



**SIBUSISO MASH MASHILOANE** holds a PhD in music, with his research centered on the concept of "home" through the lens of South African jazz. A *Cum Laude* graduate with a Masters degree in Jazz Performance from the University of KwaZulu-Natal, he serves as a lecturer at the same institution. Not only is Mash a great artist in this very vibrant time in South African jazz music, he also is a teacher with a focused goal to help grow talent from a firm foundation of African Roots.

As a pianist he appeared with many different groups around the world and is initiating projects of his own. He has now become an integral part of the South African and international jazz scene. Mash and his band have played not only the main stages on the South African circuit, but also many major jazz festivals, such as Cape Town International Jazz Festival and his live performances brought him as far as USA. A highlight was a performance at the African Sauti Za Busara Festival in Zanzibar.

Aside from the strong jazz influences, his performances are also inspired by funk, hip hop, gospel and traditional music from South Africa, attracting music fans of all genres as well as straight ahead jazz aficionados. Mash has also built a career in South Africa as a musical director. At the same time he has explored in depth the repertoire of composers such as Bheki Mseleku, Moses Molelekwa, Abdullah Ibrahim, McCoy Tyner, John Coltrane, Hugh Masekela and Bud Powell. He is known to be both a virtuoso player and conductor with his live performances being the drawing card that have garnered him audiences worldwide. He is an integral performer of African Jazz music and has built an enthusiastic fan base whilst touring South Africa, USA, Mozambique and Tanzania.



**ABOUT THE SCIENCE WITH JAZZ SEMINAR SERIES:** Following on from the successful 2025 series, the Centre for Quantum Computing and Technology at UKZN presents a series of science seminars combined with Jazz concerts, that informs about relevant concepts in science and technology and their societal impacts. This monthly series intends to inspire inter-disciplinary discussions and synergies, in particular between the sciences and the arts.

Refreshments after presentation

ENQUIRIES: Sally Frost /frosts@ukzn.ac.za / 031 260 7642