

Presentation title:

## Is land use associated with crime on South Africa's rapid rail system? A local study from the Global South

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Assumptions regarding the link between land cover, land use, land use changes and infrastructure crime generation are informed by literature originating mainly in the Global North. Little is known about the association between land use and infrastructure crime in the Global South. We utilised eleven years of rail event data ( $n = 1001$ ) for the existing rapid rail infrastructure in the Gauteng province to test the hypothesis that land use is associated with crime affecting critical infrastructure, such as cable theft and damage to property. To ensure a nuanced analysis of land use types near the rail infrastructure, Geographically Weighted Regression (GWR) analysis were used to explore the study area's vast spatial heterogeneity. This methodology considers South Africa's persistent urban realities linked to its historical legacy of uneven development and growing levels of inequality. Our methodology and analysis attempt to develop evidence from the Global South to test if results complement the evidence from the Global North.