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The Johanistan Murder Case

by Lute Munzhedzi

The date was 20 March 2020. Forensic detective Johan Ferreira and I, Detective Lutendo Munzhedzi, had just reached a breakthrough with the Johanistan murder of Miss Timely Serie. Initially, three suspects were bought in for questioning, each claiming they were stationary and had a white noise accent. Due to the lie detector test being inconclusive in all three cases, this case was labelled a cold case as no further evidence could prove any suspect to be the killer.

Detective Johan and I, however, discovered new methods to solve the crime.

The three suspects were A.R. Davis, the second (ID code: $z_t = 1.99z_{t-2} - 0.98 z_{t-2} + a_t$), M.A. Rose, the first (ID code: $z_t = a_t - 0.01a_{t-1}$), and Miss ARMA II (ID code: $z_t = 0.8z_{t-1} + a_t - 0.01a_{t-1}$) each nicknamed AR(2), MA(I) and ARMA(I,I) respectively, who had a standard Gaussian characteristic.

From witness reports, we could narrow down the stand-out characteristics of the killer. Firstly, previous investigations concluded that the killer had no obvious motive and that this was a crime of malicious intent. Such criminals are labelled as mean-zero criminals.

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Secondly, witnesses who heard the killer, explained that the killer did not have a white noise accent (which is common in this area). And thirdly, they were known to be non-stationary (they were unstable).

All suspects were proven not to have any obvious motive since there was little to no relation between them and the victim, but more tests had to be done. All three suspects claimed to be stationary and to have a white noise accent (which could easily be faked), but Detective Ferreira and I were confident that the killer was among the group; hence we decided to commence with the tests. Our intuition was correct; there was a killer in our midst. But the killer was the one I least suspected, although Detective Ferreira had a hunch.

MA(I), at first glance, seemed to exhibit characteristics of irregular variation which can be an unpredictable personality trait. But we could not base our judgement on that observation, so we took him in for testing. The first test commenced. We took in Mrs M.A. Rose, the first, and began the tests. From the data, we could conclude that M.A. Rose, the first, had a white noise accent and was indeed stationary; thus, all suspicion surrounding Mrs M.A. Rose, the first, was cleared, and we then moved on to the next suspect.

Miss ARMA II was no stranger to the precinct. She had been in for identity theft twice before. She had a personality disorder, but she was a good actress in the theatre before becoming infamous. As she walked in, she smirked as if she knew we would never find her guilty, but you could never trust someone with her reputation. The first test commenced, and her vocal statistics indicated that Miss ARMA did indeed not have a white noise accent by origin. I scoffed that sometimes it seemed way too easy. I could have locked her up that second. There was no way she could be stationary. She tended to change over time, but Detective Ferreira pushed further. The results of the second test came in, and to my surprise, she was indeed stationary. My shock about the results was not as big as the conclusion. There was one suspect left, but I could swear it was not Mr A.R. Davis, the second; he was such a well-known young man in the community.

The third test commenced. We took in Mr A.R. Davis, the second, for testing. At first glance, he seemed to have a noticable pattern, but the results for the first test came, and in bold red ink, I saw the word "FAILED". He did not have a white noise accent by origin. I then flipped the document to uncover red ink on the same corner of the next page: "FAILED". Looking at Mr A.R. Davis, the second, I could see his skin turn pale. It was as if he knew what was coming.

The officer came in and began to read him his rights, "Mr A.R. Davis, you are under arrest for the murder of Miss Timely Serie", and they escorted him out.

I was stunned. He was well known in the community for being well-groomed, stationary, and had the best white noise accent in town. I thought he would have easily been cleared, but it was evident to me that day that we could never make assumptions without knowing the facts.

Needless to say, the breakthrough in this mystery case was a relief to the community. For five years there had been unrest knowing that the killer was on the loose, but thanks to the smart thinking and impeccable skill set of Detective Ferreira and Detective Munzhedzi, another murderer bit the dust!

