ABSTRACT:

It is Better to be Approximately Right than Precisely Wrong: Why Simple Models Work in Mining Geomechanics

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ABSTRACT:

The paper argues that, due to challenges such as large uncertainty and presence of ill-posed problems, simple models are well suited to mining geomechanics. It builds its case by defining what models are, outlining the usefulness of simple models, and explaining how they can be developed. The paper explains that models are necessarily incomplete representations of real world behaviour. The strategy it advocates for constructing a simple model requires a bottom up approach – starting with the simplest possible model, and growing it to capture the essential features of phenomena of interest. The paper calls for engineers to always view models for what they really are: tools of the trade, not unlike the physical tools of the sculptor, for example.