

**Computer-assisted proof for  
functional equations based on  
infinite dimensional sequential iteration**

by

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We consider a simple iteration method “IS-Res” for functional equations based on infinite dimensional fixed-point formulation with a residual form. It needs that an operator involved the fixed-point form is retractive in some neighborhood of the fixed-point to be verified. However programming of IS-Res is relatively easy and the majority of IS-Res can be carried over into the next verification stage such as Newton-type iteration. We will show some verification results by IS-Res.