1 無限次元ガウスの消去法

(とりあえず)

$$\begin{split} A &\simeq DF^{-1} \to A = DF^{-1} \\ \phi &= DF^{-1}F(\tilde{x}) \\ DF\phi &= F(\tilde{x}) \\ \left\{ \begin{aligned} &\Pi_N DF(\Pi_N \phi + (I - \Pi_N) \phi) = \Pi_N F(\tilde{x}) \\ &(I - \Pi_N) DF(\Pi_N DF(\Pi_N + (I - \Pi_N) \phi)) = (I - \Pi_N) F(\tilde{x}) \\ &||DF^{-1}(x)F(\tilde{x})||_X \leq Y_0 \\ &DF\phi &= F(\tilde{x}) \end{aligned} \right. \end{split}$$