On the resolution of quasi-linear elliptic equations in some unbounded domains

We would like to show a method allowing to solve problems of the type

\[
\begin{aligned}
- \text{div} (A(x, u) \nabla u) &= f \quad \text{in } \Omega, \\
        u &= 0 \quad \text{on } \partial\Omega
\end{aligned}
\]

in some class of unbounded domains $\Omega$. Note that in this situation very simple and smooth functions such as the constants are not in $H^{-1}(\Omega)$. $A$ is here a uniformly elliptic matrix.

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