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On Smallest Isolated Gershgorin Disks for Eigenvalues, II
\[
\begin{bmatrix}
\mathbf{g} \\
\mathbf{\ell}
\end{bmatrix} = \mathbf{g}
\]

The following result holds:

Thus, define as the set of all vectors \( \mathbf{x} \) for which \( (\mathbf{x})^T \mathbf{v} > 0 \) is valid, is nonempty.

Where

\[ u = \mathbf{x}^T \mathbf{v} \]

for all

\[ 0 \leq \mathbf{x}^T \mathbf{v} \leq \mathbf{x}^T \mathbf{v} < \mathbf{x}^T \mathbf{v} \]

such that

\[ (\mathbf{x}^T \mathbf{v})^T \mathbf{x} = \mathbf{v} \]

To begin, we assume as in [1] that the given irreducible \( n \times n \) complex matrix

\[ V \]
Here, we are using the notation that if $C$ is an $n \times n$ matrix, then $C = |C|$. If we are using the notation that if $C$ is an associated $m \times n$ matrix with nonnegative elements, then

$$|C| = |C|$$

(11)

for any real number $x$, the following holds true:

$$|A| \geq |I - u|$$

(10)

and we can write that

$$|A| = |I - u|$$

(11)

and we consider the method of successive substitution

$$z = \frac{1}{1 - u} \left( I - u \right) g = \frac{1}{1 - u} \left( I - u \right) g$$

(11)

where $z = \frac{1}{1 - u} \left( I - u \right) g$. With the previous lemma, we can deduce that for any $z$, if $z$ is an $H$-matrix and non-degenerate by Theorem 2.1, then $z$ is an $H$-matrix. Moreover, from Lemma 2.1, for any real number $z$ with $z = \frac{1}{1 - u} \left( I - u \right) g$, we can deduce that $z$ is an $H$-matrix. Since $z$ is non-degenerate and non-negative, it follows that $z$ is non-negative. Since $z$ is non-negative, we can deduce that $z$ is an $H$-matrix.
\[
\mathbf{y} = (\mathbf{y}) \mathbf{L} \quad \text{and} \quad \gamma = \gamma
\]

From (10), this means that

\[
\gamma = (\mathbf{y}) \mathbf{L} \quad \text{and} \quad \gamma = \gamma
\]

Theorem. Let \( \mathbf{L} \) be an irreducible \( n \times n \) matrix which admits a first positive

\[
\gamma = \gamma
\]

For any \( \gamma > |(\mathbf{y}) \mathbf{L}| \), the discrete method of successive approximations converges.

This implies that for all \( \gamma \) sufficiently large, 

\[
\gamma = \gamma
\]

Moreover, since \( \gamma > |(\mathbf{y}) \mathbf{L}| \) it follows that

\[
\gamma = \gamma
\]

Therefore, the sequence of \( \gamma \) is monotonically increasing for any \( \gamma > |(\mathbf{y}) \mathbf{L}| \) as follows:

\[
\gamma = \gamma
\]

Thus, defining \( \gamma \) as follows:

\[
\gamma = \gamma
\]

Hence, we have that

\[
\gamma = \gamma
\]

Since \( \gamma > |(\mathbf{y}) \mathbf{L}| \) the sequence is monotonically increasing for all \( \gamma > |(\mathbf{y}) \mathbf{L}| \), and we have from (11) that

\[
\gamma = \gamma
\]

Therefore, we have from (12) that

\[
\gamma = \gamma
\]

Finally, we have from (13) that

\[
\gamma = \gamma
\]
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References

Table

Together with the actual eigenvalues of \( A \),

the following table gives the first four

eigenvalues of \( A \) for each of the

eigenvalues of \( A \).

which was also considered in [4],

which is the associated set \( P \),

and \( P \) is

can be isolated by positive diagonal

transformation, and in fact the

is then guaranteed by Theorem 1.

where these both that \( \alpha > |y| \),

and the strict inequality

At this point we reach our second

case in which both \( 0 \leq |y| \leq 1 \). With

this

in the disk

is a simple consequence of the fact that the matrix

In applying this process, we start with

\[ A = \begin{bmatrix}
2 & 1 \\
2 & 1
\end{bmatrix} \]