

Computational Reproducibility Screener

Survey Flow

Standard: Record Information (4 Questions)

Block: Data Review Filter (2 Questions)

Branch: New Branch

If

If Does the publication rely on one or more datasets? No Is Selected

Block: Code Review Filter (1 Question)

Branch: New Branch

If

If Does the publication rely on computation (e.g., code, GIS processing)? No Is Selected

Block: Notes (1 Question)

EndSurvey:

Branch: New Branch

If

If Does the publication rely on computation (e.g., code, GIS processing)? Yes Is Selected

Block: Short Code Review (5 Questions)

Branch: New Branch

If

If Code is publicly available and accessible from the publication (e.g., in a repository, or through... No Is Selected

Block: Notes (1 Question)

EndSurvey:

Branch: New Branch

If

If Can the code used be accessed from the publication (e.g., in a repository, or through a URL)? Yes Is Selected

Or Can the code used be accessed from the publication (e.g., in a repository, or through a URL)? Partial, some code cannot be accessed Is Selected

Block: Detailed Code Review (6 Questions)

Block: Notes (1 Question)

EndSurvey:

Branch: New Branch

If

If Does the publication rely on one or more datasets? Yes Is Selected	
Standard: Short Data Review (5 Questions)	
Branch: New Branch	
If	
If Data used is publicly available and accessible from the publication (e.g., in a repository, or th... No Is Selected	
Block: Code Review Filter (1 Question)	
Branch: New Branch	
If	
If Does the publication rely on computation (e.g., code, GIS processing)? No Is Selected	
Block: Notes (1 Question)	
EndSurvey:	
Branch: New Branch	
If	
If Does the publication rely on computation (e.g., code, GIS processing)? Yes Is Selected	
Block: Short Code Review (5 Questions)	
Branch: New Branch	
If	
If Code is publicly available and accessible from the publication (e.g., in a repository, or through... No Is Selected	
Block: Notes (1 Question)	
EndSurvey:	
Branch: New Branch	
If	
If Can the code used be accessed from the publication (e.g., in a repository, or through a URL)? Yes Is Selected	
Or Can the code used be accessed from the publication (e.g., in a repository, or through a URL)? Partial, some code cannot be accessed Is Selected	
Block: Detailed Code Review (6 Questions)	
Block: Notes (1 Question)	
EndSurvey:	
Branch: New Branch	

If

If Can the data used be accessed from the publication (e.g., in a repository, or through a URL)? Yes Is Selected

Or Can the data used be accessed from the publication (e.g., in a repository, or through a URL)? Partial, some data cannot be accessed Is Selected

Block: FAIR Standards Review - Data (6 Questions)

Standard: Notes (1 Question)

Block: Code Review Filter (1 Question)

Branch: New Branch

If

If Does the publication rely on computation (e.g., code, GIS processing)?

No Is Selected

Block: Notes (1 Question)

EndSurvey:

Branch: New Branch

If

If Does the publication rely on computation (e.g., code, GIS processing)?

Yes Is Selected

Block: Short Code Review (5 Questions)

Branch: New Branch

If

If Code is publicly available and accessible from the publication (e.g., in a repository, or through... No Is Selected

Block: Notes (1 Question)

EndSurvey:

Branch: New Branch

If

If Can the code used be accessed from the publication (e.g., in a repository, or through a URL)? Yes Is Selected

Or Can the code used be accessed from the publication (e.g., in a repository, or through a URL)? Partial, some code cannot be accessed Is Selected

Block: Detailed Code Review (6 Questions)

Block: Notes (1 Question)

EndSurvey:

Page Break

Start of Block: Record Information

ID Publication Unique ID

DOI Publication DOI

First Respondent First Name

Last Respondent Last Name

End of Block: Record Information

Start of Block: Data Review Filter

Data Filter Does the publication rely on one or more datasets?

☐ Yes (1)

☐ No (2)

Synth data Does the publication rely on synthetic or simulated data?

☐ Yes (1)

☐ No (2)

End of Block: Data Review Filter

Start of Block: Code Review Filter

Code Filter Does the publication rely on computation (e.g., code, GIS processing)?

☐ Yes (1)

☐ No (2)

End of Block: Code Review Filter

Start of Block: Notes

Q30 Please record any additional note or comments about this entry.

End of Block: Notes

Start of Block: Short Code Review

SCR-1 Code is publicly available and accessible from the publication (e.g., in a repository, or through a URL)?

☐ Yes (1)

☐ No (2)

☐ Partial, some code cannot be accessed (3)

Display this question:

If Code is publicly available and accessible from the publication (e.g., in a repository, or through... = Yes

Or Code is publicly available and accessible from the publication (e.g., in a repository, or through... = Partial, some code cannot be accessed

SCR 1-1 What is the name of the public repository hosting the code? (e.g., GitHub, Figshare)

Display this question:

If Code is publicly available and accessible from the publication (e.g., in a repository, or through... = Yes

Or Code is publicly available and accessible from the publication (e.g., in a repository, or through... = Partial, some code cannot be accessed

SCR-1-2 Provide the URLs used to access the data

Display this question:

If Code is publicly available and accessible from the publication (e.g., in a repository, or through... = No

Or Code is publicly available and accessible from the publication (e.g., in a repository, or through... = Partial, some code cannot be accessed

SCR-3 For the inaccessible code, what reason was provided for not sharing the code?

- ☐ No reason was provided (1)
- ☐ Unethical due to privacy concerns (2)
- ☐ Unethical due to security concerns (3)
- ☐ Limited by data contract (4)
- ☐ Other, please specify (5)

Display this question:

If Does the publication rely on synthetic or simulated data? = Yes

SCR-4 The procedure use to create synthetic/simulated data is described in the code in a way that allows for recreation of the data.

☐

Yes (1)

☐

No (2)

☐

Unclear, specify why (3)

End of Block: Short Code Review

Start of Block: Detailed Code Review

DCR-1 Are the available code used in the publication **Findable**?

	Yes (1)	No (2)	Unclear (3)	NA (4)
Code is assigned a unique and persistent identifier (e.g., DOI) (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Code is registered or indexed in a searchable resource (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Display this question:

If Are the available code used in the publication Findable? = Code is assigned a unique and persistent identifier (e.g., DOI) [Yes]

DCR-1-1 What is the persistent identifier of the code?

Page Break

DCR-2 Are the available code used in the publication **Accessible?**

	Yes (1)	No (2)	Unclear (3)	NA (4)
Code are retrievable by their identifier using a standardized communications protocol (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Code uses a consistent and readable commenting style (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

DCR-3 Are the available code used in the publication **Interoperable**?

	Yes (1)	No (2)	Unclear (3)	NA (4)
Code identifies package dependencies (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Code identifies package versions (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Publication or code specifies computing infrastructure used (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Code and data packaged in a container (e.g., docker) (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

DCR-4 Is the code used in the publication **Reusable**?

	Yes (1)	No (2)	Unclear (3)	NA (4)
Code is released with a clear and accessible license (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Code lists all parameters used in model/algorithm (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If an algorithms depend on randomness, seed setting methods are described in a way sufficient to allow reproduction of results (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Display this question:

If Is the code used in the publication Reusable? = Code is released with a clear and accessible license [Yes]

DCR-4-1 What license is applied to the code?

End of Block: Detailed Code Review

Start of Block: Short Data Review

SDR-1 Data used is publicly available and accessible from the publication (e.g., in a repository, or through a URL)?

- ☐ Yes (1)
- ☐ No (2)
- ☐ Partial, some data cannot be accessed (3)

Display this question:

If Data used is publicly available and accessible from the publication (e.g., in a repository, or th... = Yes

Or Data used is publicly available and accessible from the publication (e.g., in a repository, or th... = Partial, some data cannot be accessed

SDR-1-1 Provide the URLs used to access the data

Display this question:

If Data used is publicly available and accessible from the publication (e.g., in a repository, or th... = No

Or Data used is publicly available and accessible from the publication (e.g., in a repository, or th... = Partial, some data cannot be accessed

SDR-1-2 For the inaccessible data, what reason was provided for not sharing the data?

- ☐ No reason was provided (1)
- ☐ Unethical due to privacy concerns (2)
- ☐ Unethical due to security concerns (3)
- ☐ Limited by data contract (4)
- ☐ Other, please specify (5)

Page Break

SDR-2 Is a metadata provided for the data?

☐ Yes (1)

☐ No (2)

Display this question:

If Is a metadata provided for the data? = Yes

SDR-2-1 Provide the URLs where the metadata can be accessed

End of Block: Short Data Review

Start of Block: FAIR Standards Review - Data

FDR-1 Are the available data and metadata used in the publication **Findable**?

	Yes (1)	No (2)	Unclear (3)	NA (4)
Data are assigned a globally unique and persistent identifier (e.g., DOI) (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Data are registered or indexed in a searchable resource (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Metadata clearly and explicitly include the identifier of the data it describes (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Display this question:

If Are the available data and metadata used in the publication Findable? = Data are assigned a globally unique and persistent identifier (e.g., DOI) [Yes]

FDR-1-1 What is the persistent identifier of the data?

Page Break

FDR-2 Are the available data and metadata used in the publication **Accessible?**

	Yes (1)	No (2)	Unclear (3)	NA (4)
Data are retrievable by their identifier using a standardized communications protocol (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Metadata are accessible even when the data are no longer available (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

FDR-3 Are the available data and metadata used in the publication **Interoperable**?

	Yes (1)	No (2)	Unclear (3)	NA (4)
Metadata use a broadly applicable language for knowledge representation (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Metadata include qualified references to other metadata (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

FDR-4 Are the available data and metadata used in the publication **Reusable**?

	Yes (1)	No (2)	Unclear (3)	NA (4)
Data are released with a clear and accessible data usage license (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Data are described with accurate and relevant attributes (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Data have detailed provenance (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Display this question:

If Are the available data and metadata used in the publication Reusable? = Data are released with a clear and accessible data usage license [Yes]

FDR-4-1 What license is applied to the data?

End of Block: FAIR Standards Review - Data
