Citing Macaulay2 Packages

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The PackageCitations [33] package for Macaulay2 [70] gives the user a quick method for producing a bibtex entry of any Macaulay2 package for inclusion in the bibliography of a LATEX document. The cite method works "out of the box" on all packages with the following caveats and exceptions.

1. No Authors: The packages Style [1] and Text [2] have no credited authors and so, in turn, neither do their references. Applying cite to either of these packages yields a citation with an empty author tag and a printed warning similar to

Warning: The "Text" package provides insufficient citation data: author.

Package writers are encouraged to give data for at least one author of the package.

- 2. Authors and Contributors: There are a number of packages that slightly abuse the Authors key in their option table by listing certain people as "contributors". The cite method ignores contributing authors for the time being. See, e.g., [7, 22, 24, 73]. It might be a good idea to encourage package writers to only list authors that should appear on the citation in the option table and to credit contributors in the documentation of the package.
- 3. **Titles for source code**: For a package Foo, the cite method attempts to make a reasonable title from the package name and headline. We call the headline H of Foo *good* if it satisfies each of the following properties:
 - H consists of at least one word and at most ten words;
 - H does not contain a colon;

• H is not Foo nor some slight variation of it.

If H satisfies these properties then the title given in the citation will be Foo: H. See, e.g., [33]. Otherwise the title will be the more generic Foo: A Macaulay2 package. See, e.g., [120]. The cite method can handle quotes (see, e.g., [39]) and will transform any occurrence of the string "Macaulay2" into Macaulay2. Moreover, the tex string in [159] is handled properly. However, package writers might be encouraged to avoid using quotes and tex strings in their package headlines as a general rule.

4. No link to source: It is possible that, by oversight or policy, an external Macaulay2 package Foo can provide no link to its source code. See, e.g., [27]. In this case cite returns a partial citation and issues the warning:

Warning: The "Foo" package provides insufficient citation data: howpublished.

- 5. Certified Packages: For *certified* Macaulay2 packages, the method cite gives two citations: one for the version of the source code being used, and one for the journal article certifying the package. See, for example, [8, 9] or [10, 11].
- 6. **Diacritics**: The following collection of diacritics are handled properly by the method cite: á, å, æ, è, é, ó, ø. See, e.g., [10, 108, 72]. These are all that are needed for cite to work with the Macaulay2 packages presently available but may need to be extended in the future.
- 7. **Suspected Typos**: The cite method makes no attempts to rectify typographical errors in the data provided by the source code. The user has been warned. For possible typos in titles see, e.g., [39, 41, 58]. For possible typos in version numbers see [126].

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