

Peer J Computer Science

Comments from Editor

SymPy: Symbolic computing in Python

1. I found the `http://live.sympy.org/` site very convenient for trying things out in SymPy, but it is only mentioned in the supplement, which might be overlooked by readers. I suggest moving that section into the main paper, as it provides a great way to play along with the examples while reading the paper.
2. The Basic Usage section omits what I think is an important point: how does one distinguish between evaluating `exp(1)` in Python and `exp(1)` in SymPy? In other words, how are symbolic constants specified?
3. The first thing I tried after seeing Table 2 (simplication functions) did not work:

```
>>> trigsimp (exp( Matrix(2, 2, [0, -y, y, 0])) )
```

fails to recognize cos and sin. Am I expecting too much?
4. Section 3.6: are eigenvalues and singular values included? If not, why not?
5. Like one of the referees, I expected to see MPFR mentioned in Section 4.1, at least to mention the pros and cons and say why it isn't used.
6. Section 4.1: please state whether the syntax for functions in `mpmath` is identical, or not, to that in SymPy.
7. Unless I have missed something, a weakness of the paper is that speed is mentioned only twice, on lines 496 and 666. My assumption is that SymPy is slow compared with its commercial competitors. Please comment on the speed issue, and not just in the conclusions.
8. Editors are needed for [20].