Succinct, snappy, but not too cute paper title ...or a boring title

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This is a brief abstract of a couple-hundred words or less that describes what we did, why we did what we did, how we did it, and what the results were. Here we spell-out all acronyms. Of course, see the PRL style guide, PRL papers, the grading rubric, and the syllabus to get a better idea of how a PRL paper should look.

Here in a few paragraphs or maybe a page we lay-out the problem that we're seeking to address, some history behind the problem [1], and a concise description of the measurement we did and/or device we developed. There's no formula for this paper. The best strategy is to look at other papers on a similar topic for inspiration. Note that Letters generally do not have labeled sections.

Typically the introduction concludes with a paragraph laying out what the paper will discuss in the subsequent sections. For example:

We report here the measurement of something glorious using the totally ingenious experimental set-up. We find something amazing, which we compare to calculations using super theory. We demonstrate this implies something super awesome.
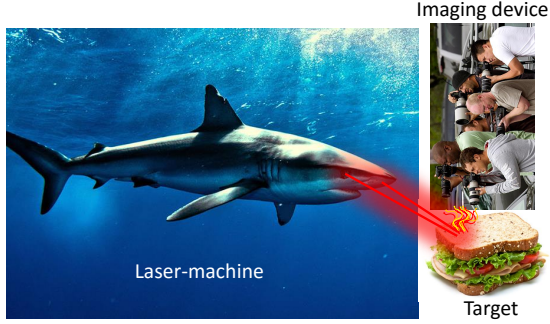

FIG. 1. (color online.) Totally real photograph of our set-up that really exists.

Describe the set-up, such as the real-life one in Figure 1. This is a Letter, so don't dwell on it too much. For example, its unlikely you'll have room to discuss things like who [2] manufactured your stuff.

Describe the measurement technique. You don't have a lot of space, so be comprehensive but concise. It's nice to show an exemplary spectrum.

Present your measurement results. Here a key figure or table might be nice to include.

Discuss your results. Compare to calculations. Note implications. Maybe compare to an analytic relation, like
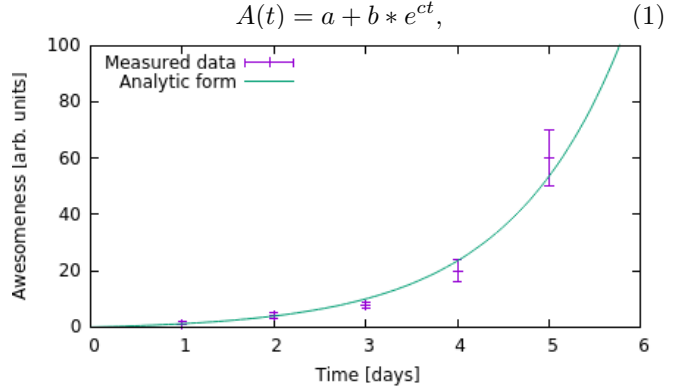
$$A(t) = a + b * e^{ct}, \tag{1}$$

FIG. 2. (color online.) Measurements (purple points) compared to expected awesomeness (solid cyan line).

where $A(t)$ is the awesomeness at time t, a is the awesomeness at $t = 0$, and b and c are constants fit to our awesomeness relation in Figure 2. This is the highlight of PRL, so note why these results are so noteable. I.e. will these results change the way we think about a problem? Solve a long-standing problem? Make solving another problem much easier? Demonstrate a cute result?

Wrap-it all up. This is very much like a hybrid of the abstract and introduction.

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[1] J. Cena *et al.*, Nucl. Instrum. Meth. Phys. Res. Sect. A **10**, 203 (2009).

[2] (2016), company name and/or url.