Title --- How to select one?

A good title should carry critical information (your results on an important subject) to attractive people to read on.

A good title will attract appropriate readers.

Try alternative titles ...
- What are the differences
- Pair elimination
- The best one should be tempting and informative
- Author's contribution should come first

Title (cont.)

- The title is not read; it is scanned, within 2 seconds at most.
- A long easily understood title is better than a short one with nouns to be unpacked, which in turn is better than an ambiguous one
- An old or popular subject → a longer title in order to specify the contribution

Techniques to improve the title

1. **Placement of Contribution First**

    For a full sentence, the new information usually appears at the end and the old information at the beginning.

    In a verbless title, however, the situation is reversed.

    A good title will attract the appropriate readers.

    What is the question you aimed to answer for your research to begin with?

2. Using Verbal Forms

A verb gives energy. So use gerunds（動名詞）or infinitives（不定詞）to <u>energize</u> your title.

For example:
Data learning: Understanding astronomical data

HUNTING TRANS-NEPTUNIAN OBJECTS

with the Hyper Suprime-Cam Subaru Strategic Program DEEP Layer: Preliminary Results

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What are TNOS?

- Small rocky bodies beyond the orbit of Neptune.

Identifying TNOs

1. Using the pipeline developed by Chen et al. (2018).

TNO candidate

Not moving

Characterizing the Interplay between Molecular Clouds and Young Objects in the Rho Ophiuchus Star-Forming Region

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Abstract

The Rho Oph cloud complex, with its proximity (~130 pc) and a high concentration of gas and dust plus stellar and substellar populations in infancy (1-2 Mys), offers a vintage laboratory to delineate the starbirth process out

Diagonosing triggered star formation in the cloud complex Sh-142/NGC 7380

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Introduction and Motivation

Star formation does not occur in isolation, but rather in a molecular cloud complex, it is an intricate interplay of gas, dust and stars already in existence in the vicinity. Fierce stellar winds or UV radiation from massive stars may disperse nearby cloud hampering further starbirth. Alternatively, under certain conditions

Sh-142

3. Using Adjectives or Numbers to Stress contribution

Fast, highly efficient, robust, but not new or novel

The most specific, the better, e.g., 5 Hz sampling is *better than* fast sampling

4. Clear and Specific Keywords

Easier to locate by a search engine or database

The keyword(s) you would use to look up papers of this subject
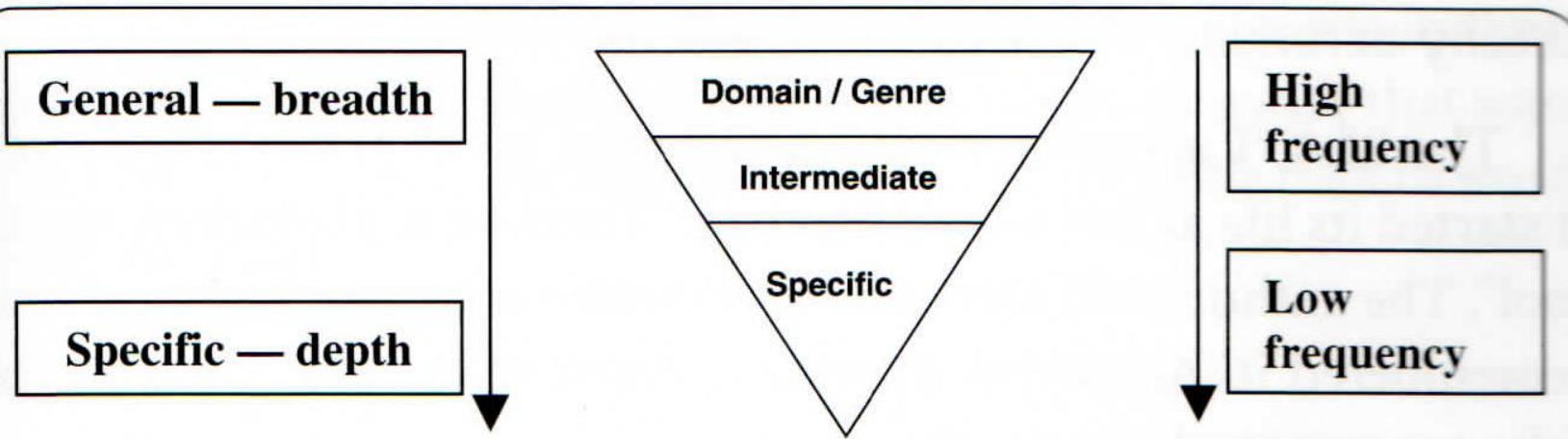
5. Smart Choice of Keywords

Pick your keywords from recent or often-cited titles close to your contribution
→ searches to retrieve those will also find yours

If two keywords are equally good, choose one for the title and the other for the abstract.

6. Catchy Acronyms

HST, SDSS, MACHO, TAOS

General — breadth		Domain / Genre		High frequency
		Intermediate		
Specific — depth		Specific		Low frequency

☛**1. Keyword depth and breadth.** Specialised keywords are at the pointed lower end of the inverted triangle. General keywords are at the broad top end of the triangle. The general-to-specific scale correlates with the frequency of use of a scientific keyword. Depth and breadth of a keyword are not intrinsic qualities, but rather depend on the frequency of use of these words in the journal that publishes the paper. For example, the reader of *Science* may consider "nanopattern" very specific, yet the reader of the *Journal of Advanced Materials* will find it quite generic. The reader's knowledge also influences the perception of keyword levels: the less knowledgeable the reader is, the more the general keywords will seem specific, and vice versa.

network) are useful to describe the domain or the type of your work/paper, but they have very little differentiating power precisely because they frequently appear in titles. They do not help to place your title at the top of the reader's list. Intermediate keywords are better at differentiating. They are usually associated with methods common to several fields of research (*fast Fourier transform, clustering, microarray*) or to large subdomains (*fingerprint recognition*). But, for maximum differentiation, specific keywords are unbeatable (*hypersurface, hop-count localisation, nonalternative spliced genes*). For a given journal, or for domain experts, the category of a keyword is well defined. It changes from journal to journal, or from experts to nonexperts.

Make sure your title has keywords at more than one level of the triangle. If too specific, your title will only be found by a handful of experts in your field; it will also discourage readers with a sizeable knowledge gap. If too general, your title will not be found by experts. The keyword choice decision is yours. Be wise.

- So a good title should be

  unique, lasting, concise, clear, easy to find, honest and representative, and (if possible) catchy

- A question for the title?

- Be careful about complex compound nouns.

- Care the prepositions
  evidence for (to support something) vs evidence of (actual sign)

- Avoid "*may/might/could*"

Catchy title . . . but how?

Here are seven proven ways:

(1) Adjectives are attractive.

(2) Some keywords carry the passion of the time. Encountering them in titles excites the reader who is keen to keep up to date with the latest happenings in science.

(3) Verbal forms (gerundive and infinitive) are more active and potent than strings of nouns connected by prepositions.

(4) A shorter title is more attractive than a long one, and a general title is more attractive than a specific one.

(5) Words that announce the unexpected, the surprising, or the refutation of something well established all fuel the curiosity of the reader.

(6) Unusual words that belong to a different lexical field intrigue the reader.

(7) Questions are great, but are often reserved for the few who have reached professorship or Nobel Prize status.

To make a title catchy, there is only one rule: catchy, yes; dishonest, no.

What do you think of your title? Does it have enough of the qualities mentioned here? Is your contribution featured at the head of your title? It is time to have a closer look.

Exercise

Let us be critical …
   Select 5 titles from the latest ApJ issue. Do
   the same for 5 titles in the RAA.

What is the title you have come
up with for your
thesis/paper/report?
Bring it to our discussion.