



## **Advice to a student who wants to make a career in the mathematical sciences**

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1. Choose the science or scientific topic from what you like or are good at – often the same thing – and not from what is “in”
2. Interesting discoveries are often made in the intersections between different disciplines, where nobody normally ventures.
3. You might get some good ideas from reading very old journals or books, or while clarifying to yourself why they are wrong.
4. Good science is often counter intuitive. That is why the most difficult part is not the mathematics but what the mathematics mean
5. The same process can often be described by different types of mathematics – choose the one you like best or find most appropriate
6. Never give up on an idea just because “everybody” is against it, only when you realized that you have been wrong - and start seeing new frontiers open up
7. Do not be afraid to ask “stupid” questions, you will learn a lot and also make you realize who among your colleagues you can rely on
8. By taking a controversial attitude or play the devil’s advocate you will avoid the common pitfall of only considering facts that seem to support your hypothesis.
9. The world is full of numbers, both inside and outside science. So learn statistics, it is as important as the ability to read, write and count (H.G.Wells).
10. Halfway through your career read about the history of science. It will tell you that the confusion and chaos you experience every day has been there from the start!