The WORST mistake of my life...

...and how you can avoid it!

VU VRIJE UNIVERSITEIT AMSTERDAM

d.iannuzzi@vu.nl

A SELF-REFLECTION ON MY CAREER

Full professor at age 41!

A SELF-REFLECTION ON MY CAREER

d.iannuzzi@vu.nl

The WORST mistake of my life...

<u>The worst mistake of my life:</u>

Why did it take me

39

years of my life to start a company?

A REFLECTION ON YOUR CAREER

d.iannuzzi@vu.nl

WHY BOTHER?

DIFFERENCE BETWEEN PHYSICS AND BUSINESS

PHYSICS

BUSINESS

ONE DAY, I MAY BECOME RICH!

BUSINESS

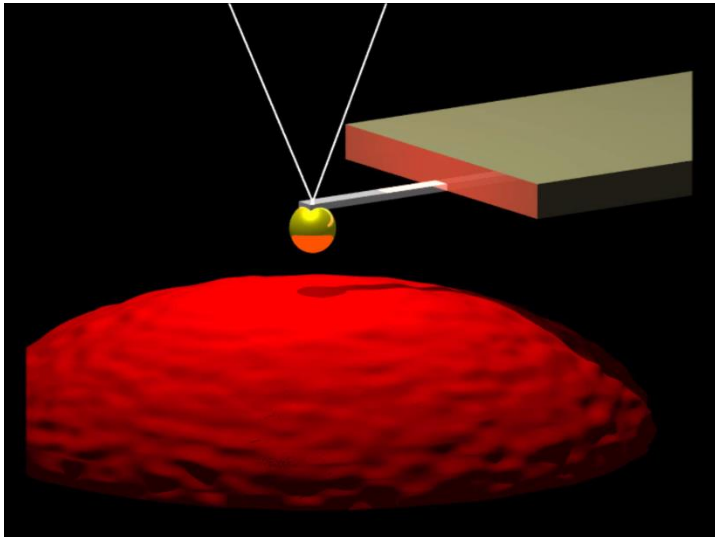
ONE DAY, I MAY BECOME RICH!

BUSINESS

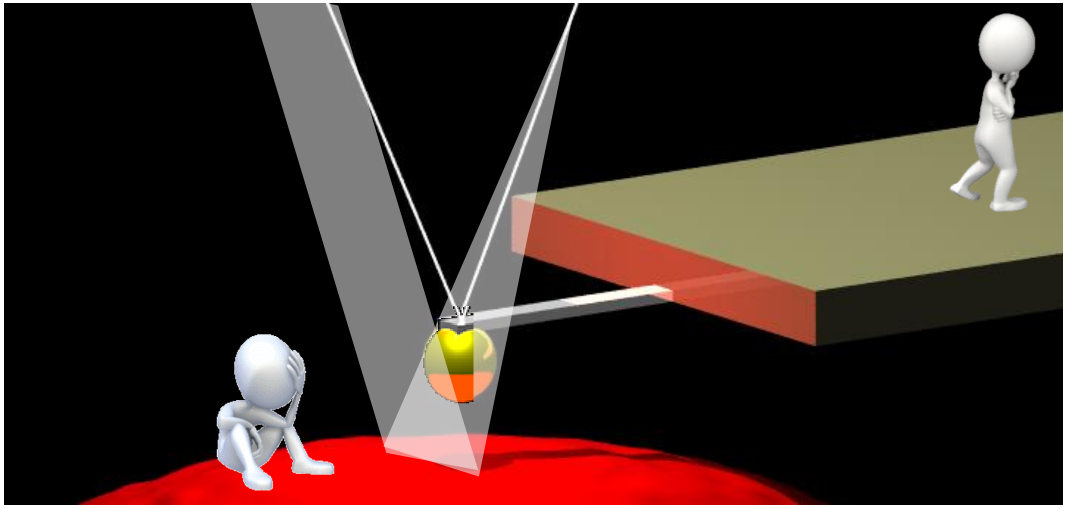
[What do you mean by “rich”?]

MONEY

ONE DAY OF AUGUST, 2005

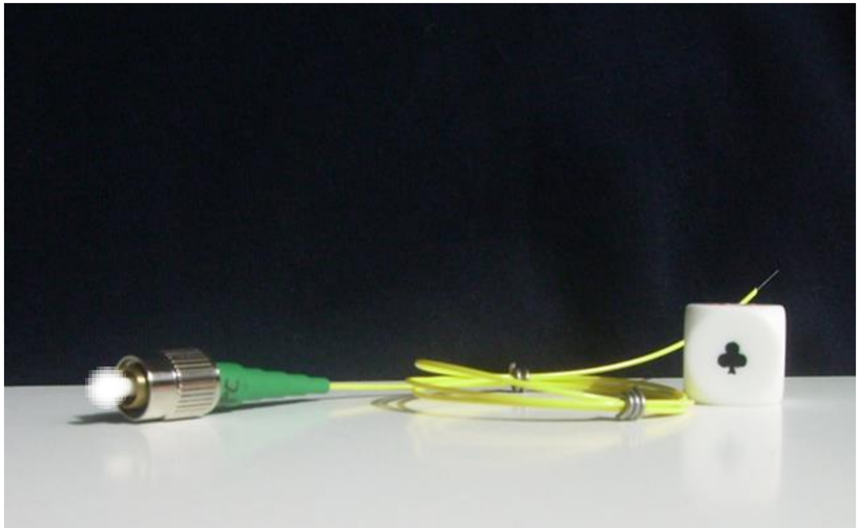


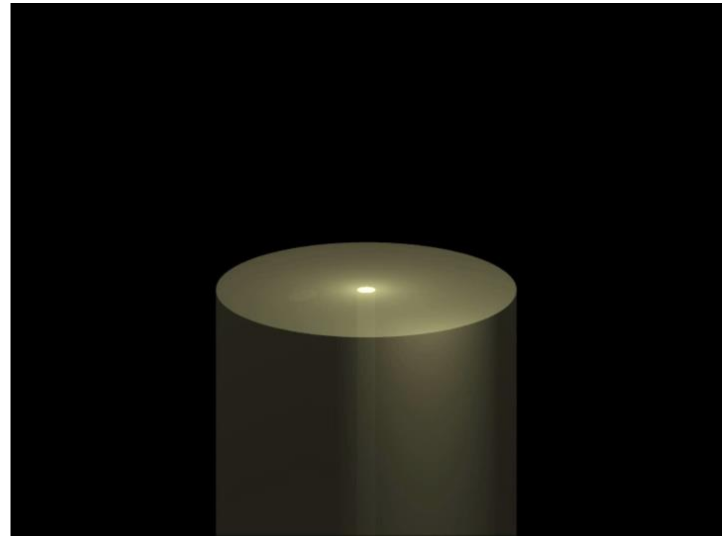
Casimir force measurements (@ 100 nm)

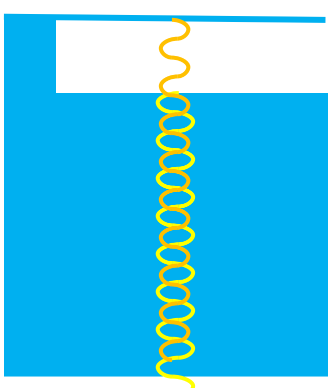


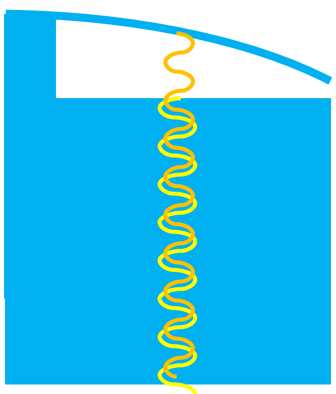
...an annoying problem (2005)

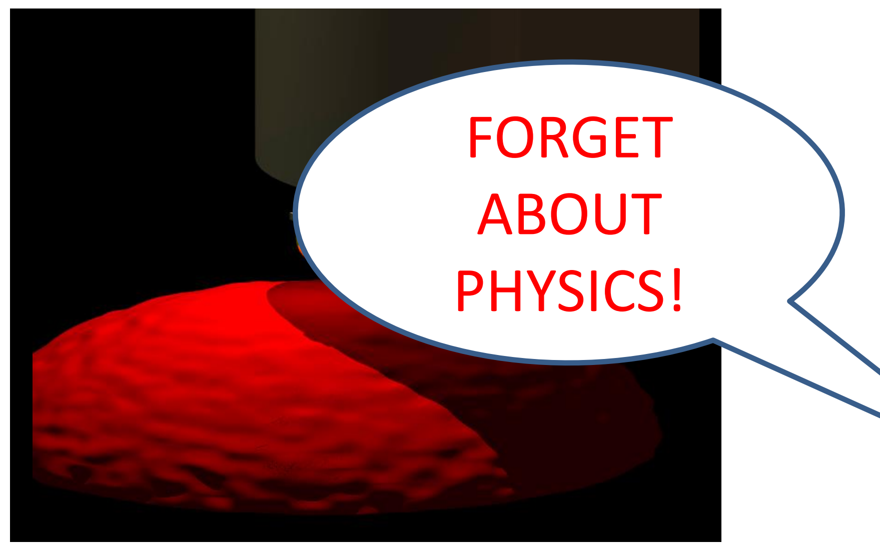
FIBER-TOP TECHNOLOGY





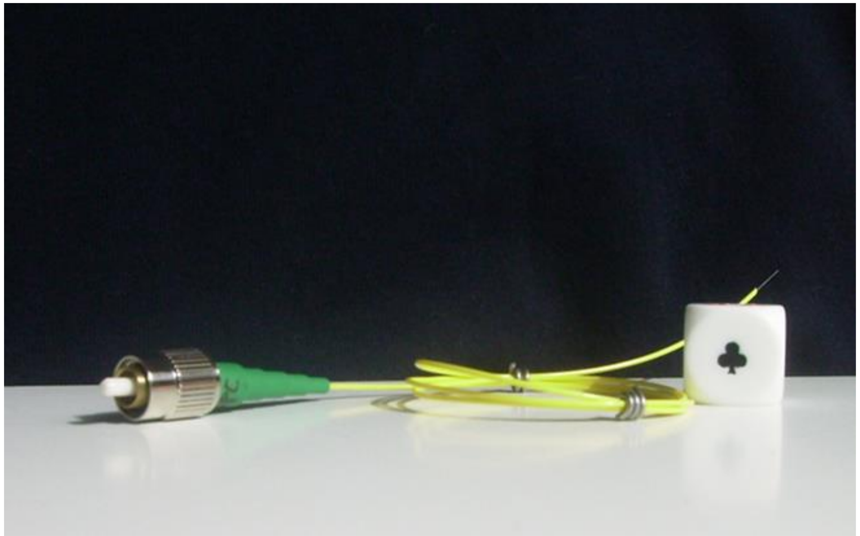


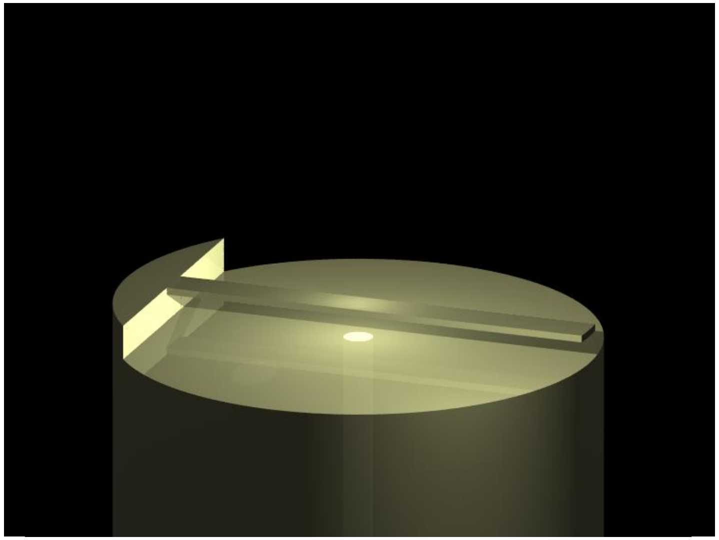




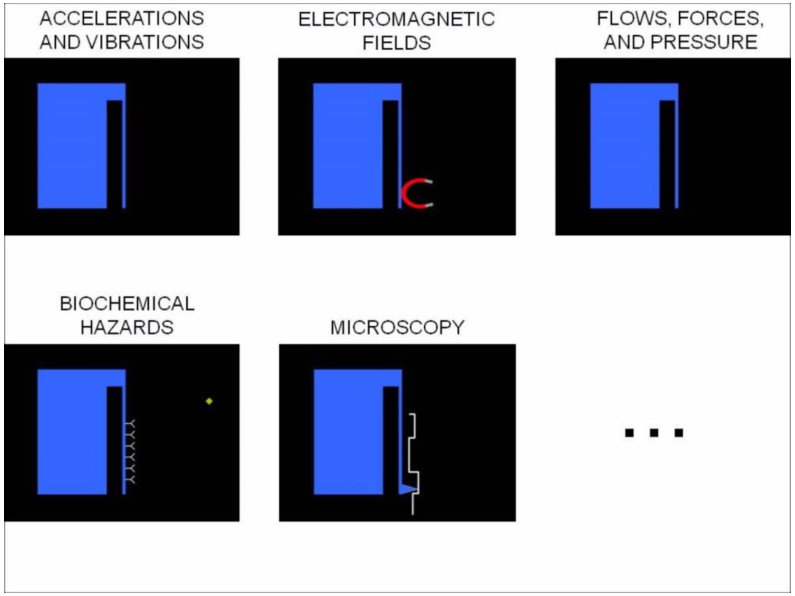
d.iannuzzi@vu.nl

FIBER-TOP TECHNOLOGY





- Extremely small (0.1 mm)
- Easy to use
- Adapt for harsh environments
- Adapt for remote sensing



d.iannuzzi@vu.nl

TECHNOLOGY TRANSFER

TODAY, FIBER-TOP TECHNOLOGY:

- Gives a job to ≈20 people
- Is spread in more than 10 countries all around the world
- ...with more than 2000 probes sold in the last 2 years alone

SENSE OF ACCOMPLISHMENT

TICKET TO HEAVEN

"I may not be better than other people, but at least I am different."

Jean-Jacques Rousseau

TICKET TO ~~HEAVEN~~
RIDE

TICKET TO HEAVEN

d.iannuzzi@vu.nl

MOTIVATION #4

FUN !!!

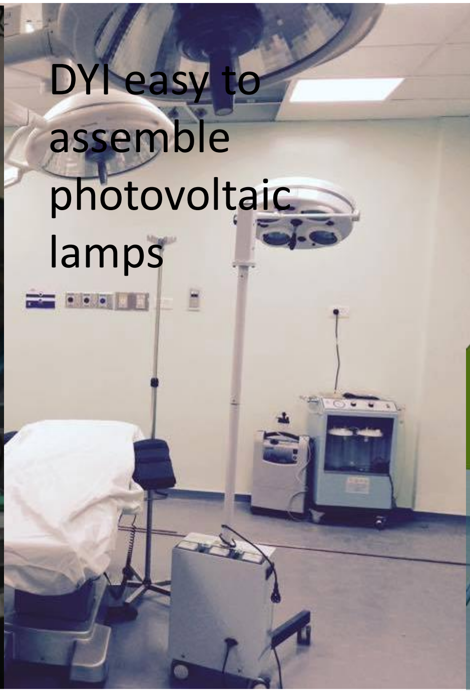
PARTIAL SUMMARY: WHY BOTHER?

1. **You may become rich**
2. **You may receive back a unique sense of accomplishment**
3. **You may add a distinctive element in your CV**
4. **You may have a lot of fun**

SUMMARY 1.5...not interested...check this out!

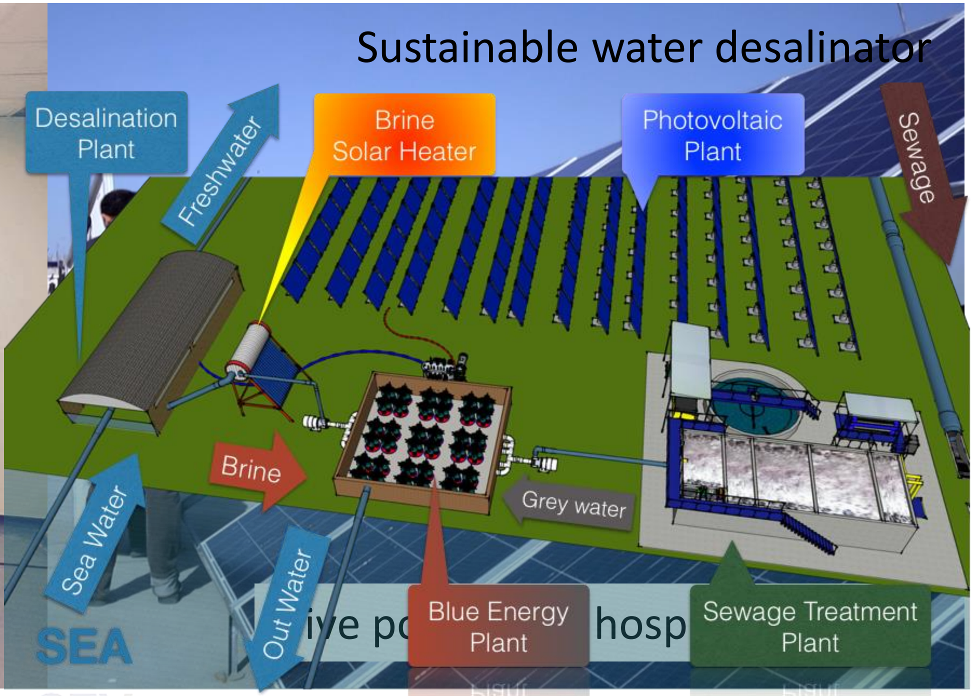
Barbara Capone

Sunshine4Palestine



DYI easy to assemble photovoltaic lamps

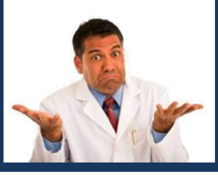
Sustainable water desalinator



d.iannuzzi@vu.nl

IDEAS?

BUT I DO NOT HAVE AN IDEA TO START WITH!



Number of thoughts in one day?
Web: 70,000

Some people cite Dr. Fred Luskin (Stanford)

…who has no idea!

Counter argument

***Neuronal oscillations*: 3 ms**
Bound into *perceptual moment* ("singular state of being conscious"): 3 s

E. Pöpper (1997), *Trends in cognitive science* 2, 53

24 h/day – 8h/day (sleep) → 21,600 perceptual moments/day < 70,000

Still: ≈ 20,000 opportunities/day to bounce on a problem

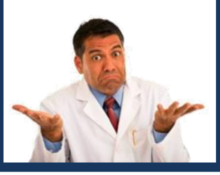
- **FIND A SOLUTION TO A PROBLEM…**
- **…THAT IS SHARED BY OTHER PEOPLE…**
- **…WHO ARE WILLING TO PAY TO SEE IT SOLVED!**

Ok, but…how???

[Example1]
[Example2]

This part of the lecture takes inspiration from the TIAS Entrepreneurship course of professor R. Dew

GOOD NEWS: LATERAL THINKING



LOOK FOR SOLUTIONS THAT ARE:

- **Obvious in hindsight;**
- **Based on what is already there;**
- **Similar to existing solutions;**
- **Break a rule or an expectation.**

...a little bit like scientific research, isn't it?

+ This is only the market pull sector
you have access to all the technology push sector!

This part of the lecture takes inspiration from the TIAS Entrepreneurship course of professor R. Dew

EXECUTION

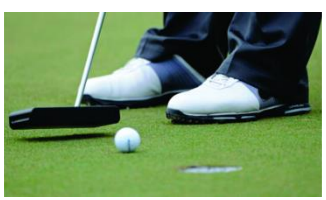
RISK AVERSION 1

Hole 13, Augusta National (Georgia, USA)

STATUS QUO → 5 strokes = PAR = standard

GAIN → 4 strokes = BIRDIE = good play → one stroke less on the scorecard

LOSS → 6 strokes = BOGYE = poor play → one stroke more on the scorecard



Professional golfers are 3.6% more accurate when they putt for a PAR (avoid a loss) than when they putt for a BIRDIE (harvest a gain)

D. G. Poe and M. W. Schweitzer (2011), *American Economic Review* 101, 129

D. Kahneman (2011), *Thinking, fast and slow* (Penguin Books)

d.iannuzzi@vu.nl

RISK AVERSION 2

132 students have been asked:

A) GAMBLE: 10% chance to win 95€ / 90% chance to lose 5€: accept?

B) LOTTERY: cost of ticket = 5€ / 10% chance to win 100 € and 90% chance to win nothing: accept?

58% gave coherent answers
10% accepted the gamble (loss) but not the lottery (cost)
32% accepted the lottery (cost) but not the gamble (loss)!

Losses evoke more negative feelings than costs!

D. Kahneman (2011), *Thinking, fast and slow* (Penguin Books)

RISK AVERSION: THE CURE

Prospect of a loss is more painful than prospect of a foregone gain;
A loss is less acceptable than a cost;

INVESTMENT IN A STARTUP = prospect of a loss

HOW ABOUT?
INVESTMENT IN A STARTUP =
a cost that will give me the opportunity to harvest an otherwise foregone gain!

How about failure?

OK, OK ... BUT HOW DO I DO THAT???

THIS COURSE

is a good starting point.

IF YOU WANT TO ENJOY IT, TAKE THESE WORDS OF ADVICE

- **All questions can be answered by a theory that can be summarized in a 2x2 matrix**
- **If you give some old concepts a new name and write a book using your new terms, you can say that you have found a new model; therefore...**
- **There are more models than consultants**
- **For a given problem, there may be more than one model that give the correct answer!**

- **WATCH OUT!!!**

People are irrational and make irrational choices!!!

WELCOME TO BUSINESS CLASS:
SWITCH OFF YOUR BRAIN AND ENJOY THE RIDE!