

# Young People and their Talents

- The young people are the most precious we have.
- Older colleagues should help them to develop their skills.
- What did OS realize as the most important
- hints for a successful and happy life?
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- Each child has individual talents!
- It needs good examples: Loving parents, motivating teachers, encouraging supervisors and colleagues,
- who help to discover these talents and guide children
- to develop and use them to become independent,
- and to develop initiative.

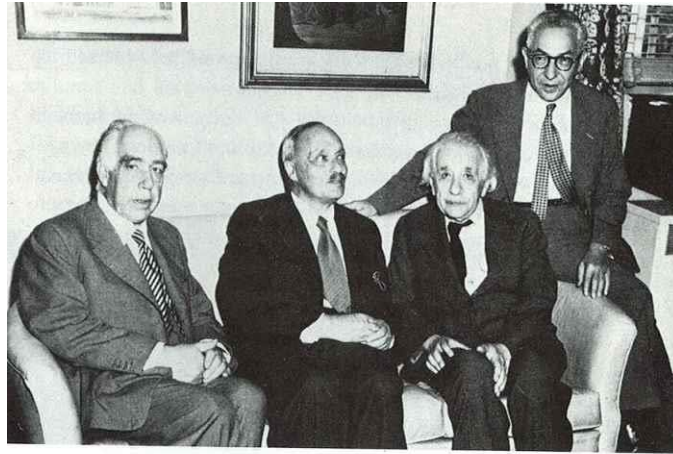
# The Golden Rule

- Treat others the way, you want them to treat you!
- My parents told me this **Golden Rule**, when I was a child.
- Luxury is not necessary for a happy life!
- Intelligent persons learn from mistakes.
- The super-intelligent watch others, avoid their mistakes
- and adopt their successful approaches - and do better!
- Work hard and make best use of your abilities and chances!

# Support by Niels Bohr

- Good supervisors give their students freedom,
- and show them that there are limitations.
  
- For our experiments the famous Niels Bohr,
- head of the Research Establishment Risø
- of the Danish Atomic Energy Commission,
- gave us crucial support.
- All our publications showed as contributing institutions:
- Technische Hochschule München
- and Research Establishment Risø.
  
- **Fair sharing!**

# Four Famous Physicists



■ One of the relatively few times when Niels Bohr and Einstein met was in 1954 at the Institute for Advanced Studies in Princeton where this picture was taken. Between Bohr and Einstein is Professor James Franck and on the arm of the chair is Professor Isidor Rabi, both of them distinguished nuclear physicists and recipients of the Nobel Prize.

Here is a picture of (from left):  
Niels Bohr, James Franck, Albert Einstein and Isidor Rabi

# The Niels Bohr Institute

- In the Niels Bohr Institute (NBI) in Copenhagen:
- Very fruitful discussion with Aage Bohr, Niels Bohr's son,
- and with Ben Mottelson, who helped optimally.
- Aage Bohr and Ben Mottelson later won the Nobel Prize!
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- In the NBI I also met physicists from many countries,
- gained them as friends, and understood, that
- **international, world-wide co-operation**
- **is the best way to do science.**
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- In the US: also work with Shelines group.
- Ray Sheline had 7 children, whom he told:
- **Give your best!**
- Note the best! Nobody is perfect!
- The best advice is: Give your best!
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# International Co-Operation

- My aim was international co-operation:
- Many scientists and students from many countries!
- After 1989 also scientists from
- eastern Germany, Russia and Georgia.
- I asked them to work together with us in Juelich.
- A great success for all of us!
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- Duties at the University, work in the institute:
- Little time for family!
- My dear wife took well care of our children and other things.
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- What do physicists consider as most important goal in life
- **Happiness!**

# Others Help You!

- Useful hint. Ask others for help!
- Also work with the internat. ISOLDE-collaboration at CERN.
  
- I asked the CERN Research Director
- to give ISOLDE his full support. He decided, that the synchro-cyclotron should now serve ISOLDE exclusively.
- This gave ISOLDE an enormous push.
  
- The collaboration needed also a magnet spectrometer.
- I went to Paris, to Prof. Yoccoz, director of the
- National Institute for Nuclear and Particle Physics.
- I explained openly all details and asked for his support.
- He said: **Our most important task is fair sharing.**
- I think so too! Yoccoz said, that he would discuss
- my wish with his French colleagues.
- I got their o. k.! The spectrometer was built!
- And ISOLDE went into a bright future, up to now.

# Optimum Political Support

- *How to overcome political constraints?*
- Present valid, good, constructive and convincing arguments!
- Practice **open** and **good relations** with the people
- of you government! **Inform them seriously!**
- That minimizes political constraints!
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- *Example:* Problems with timely visa.
- I wrote to our Minister,
- that our work has been the best measure to secure peace.
- The problems had vanished!



# Big Projects: COSY

- If you want that the Government finances a major project:
- **Be well prepared and ask humbly for help!**
- In 1988 Rudolf Maier: design of cooler synchrotron COSY.
- October 1991: Presentation of our project to the
- Scientific-Technical Committee of our Board of Directors.
- Colleague, Josef Speth, his computer expert, Ewald Brökel,
- and my co-worker, Hellmut Seyfarth, helped.
- That was crucial for the future of our Institute.
- I asked all members of the committee to give us their support.
- And they did! We had to work hard.
- COSY was built successfully!

# More Money for Science!

- *Additional money?* Approach the minister,
- and ask influential friends for help!
- June 1994, our minister for science, Anke Brunn came.
- We wanted to build our ANKE - Spectrometer
- (Apparatus for measuring Nucleonic and Kaon Ejectiles).
- Adi Retz, (IKP-member), politically smart,
- also member of our Parliament,
- convinced the finance minister and Anke Brunn
- to support us with 3 Million D-Mark!
- That was decisive to build ANKE,
- also thanks to all of our Russian and Georgian co-workers.
- Now, Andro is the perfect spokesman for ANKE,
- a very good example!

# Life Means Work

- *How to work? And for whom?*
- Work together **with** others and **for** those, who follow you!
- Hans Ströher: My successor!
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- I liked to hike in the Swiss mountains.
- In summer 98, at 4000 m, I lost my conscience,
- fell and broke my leg.
- Time to recover and think, think more about life!
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- Hans Ströher has done very well.
- I decided to deal with other things.

# On The Top

- Picture taken from the top of the Hohberghorn, 4219 m,
- across the Stecknadelhorn, 4218 m
- to the Nadelhorn, 4327 m,
- on a tour which included the Dürrenhorn, 4035 m,
- the so called Nadelgrat -Tour – on a hike for a long day.



# What can I do for You?

- I am satisfied, grateful and happy.
- Wonderful parents, excellent teachers, and a wonderful wife!
- Very co-operative and active co-workers and students.
- All used their talents optimally and worked most successfully.
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- For a lucky life: watch your environment,
- pick your chances, use your freedom, respect limitations,
- and develop an **open** attitude. so that others can **trust** in you!
- Rely on persons who support you
- and to whom you can turn to.
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- I want to help and motivate you:
- Use your talents to shape your life so that you are happy!
- Scientists and politicians must help each other.
- **We must work for others, for improving our world!**

# Recommendations

- **Think a lot, as many steps ahead as possible!**
- **Build and use the best tools!** You cannot buy them.
- **Risk things, which others do not dare to try out!**
- **Work hard and efficiently with scientifically excellent and human supervisors and colleagues!**
- **Never give up!**
- **Stick to transparency and surmount borders,**  
in your head and your heart.
- **Be open and helpful!**
- **The best scientific work is to co-operate internationally!**
- **Scientists can also work inter-disciplinarily!**

# My wishes for all of you

- **Good health,**
  - **luck,**
  - **success,**
  - **happiness,**
- **and the blessing of God!**