Conversations with Staś on physics and other stuff

Dubna times (1984-1986)

In Kielce (from 1996)

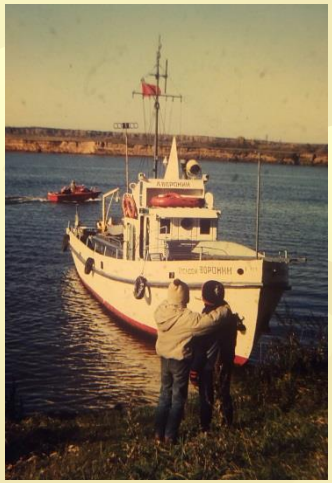
Physics: one example

Privately

Staś in Dubna

- Laboratory of High Energies (experiment !)
- Gaździcki-Mrówczyński collaboration
- wide range of interest: experiment → theory
- PhD in ITP Kiev (1985) → theory !
- our friend L.L. Nemenov → egzotic atoms
- community (Mrówczyński, Gaździcki, Dominik, Wiślicki, Kowalski)
- social life (families, meetings, Volga river)

Staś in Dubna - photos



Staś in Kielce

- Joins Institute of Physics in 1996
- New experiance and fun with teaching !
- Deputy director for research for many years
- Scientific growth of the Institute
- Group of High Energy Physics (exp+theory)
- Growing team (Mrówczyński, Gaździcki, Seyboth, Florkowski, Broniowski, Giacosa)
- Workshop on Relativistic Heavy Ion Collisions

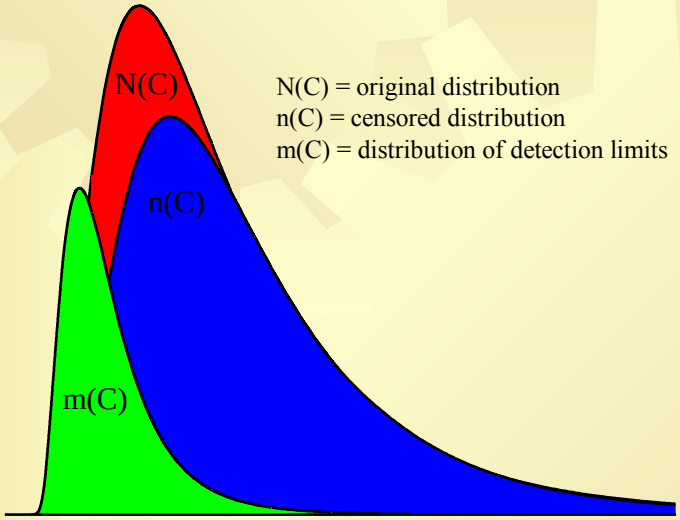
Staś in Kielce - photos

12th Workshop on Relativistic Heavy Ion Collisionsg, November 4-6, Kielce, Poland

Physics: one example

- Broad range of interests (tachyons, relativistic nuclear collisions, plasmas, diffusion, censoring…)
- Two common papers on censoring
- Problem: How to include the nondetects in for random detection limits ? (trace elements by x-rays)
- Surprisingly efficient and accurate solution found (say: 5% accuracy for 50% censoring !)
- Statistical interpretation: random left censoring → Kaplan-Meyer estimator (the most cited paper in mathematics!) widely used in life-time testing in medicine → first application in x-ray spectroscopy

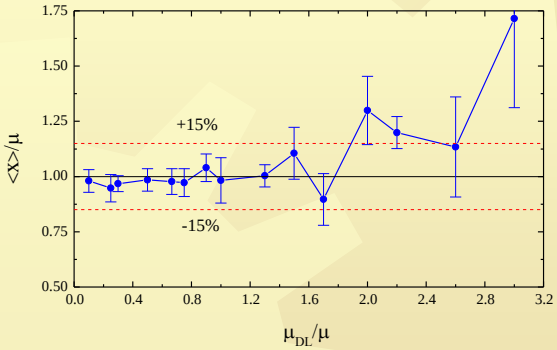
Physics: description of censoring

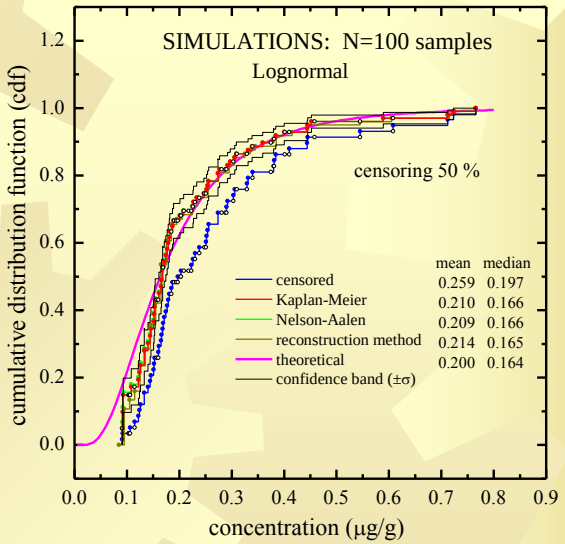


N(C) = original distribution
n(C) = censored distribution
m(C) = distribution of detection limits

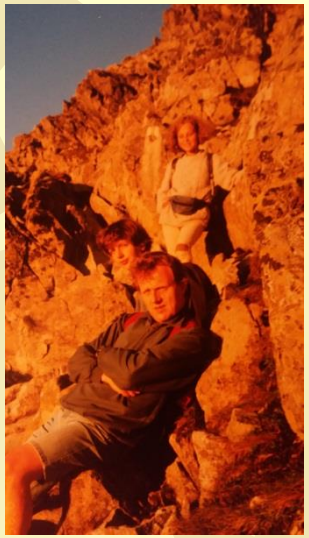
$$\frac{N(C)}{N} = \frac{n(C)}{F(C)} \cdot \exp[-\int_{C}^{\infty} \frac{n(C')}{F(C')} dC']$$

$$F(C) = \int_{0}^{C} [n(C') + m(C')] dC'$$





Privately – some photos



All the best to Staś for his 60th birthday !