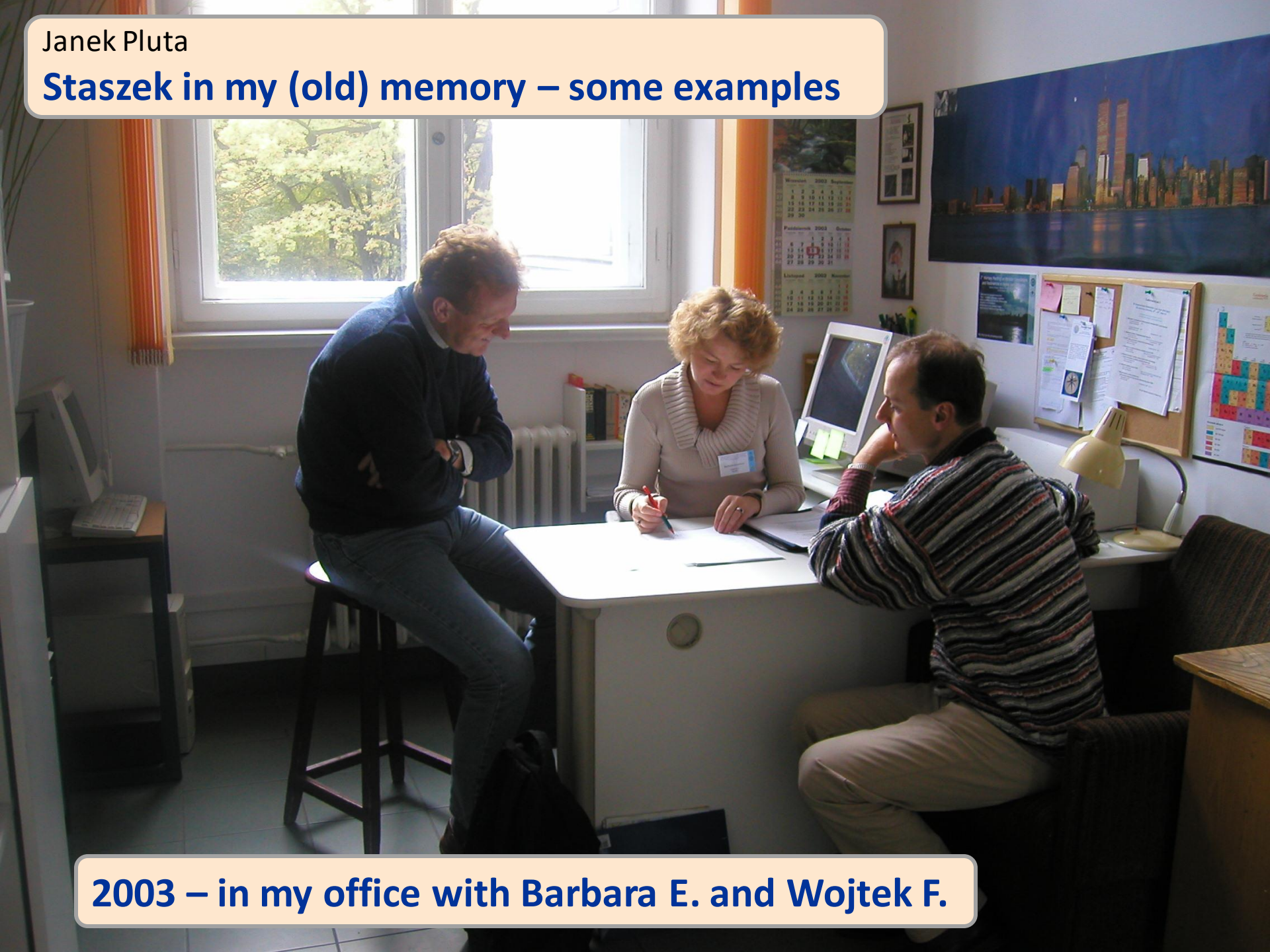
Janek Pluta

Staszek in my (old) memory – some examples



2003 – in my office with Barbara E. and Wojtek F.

…In my (oldest) memory…

Dubna time, 1980 +…

Imagine the discussion at the Laboratory seminar

between:

A.M.Baldin - Director of Laboratory and the creator of the notion „**cumulative effect**”

and

Staszek Mrowczynski - „young researcher” - at the age less than 30

It was something like a battle between „*David and Goliath”*

Imagine more - funny and interesting …

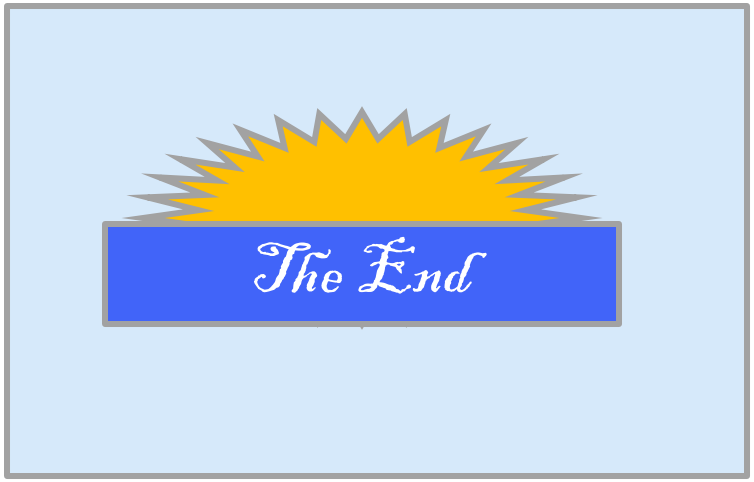
difference between

the end of talk of ordinary speaker and of Staszek

Last slide of ordinary speaker

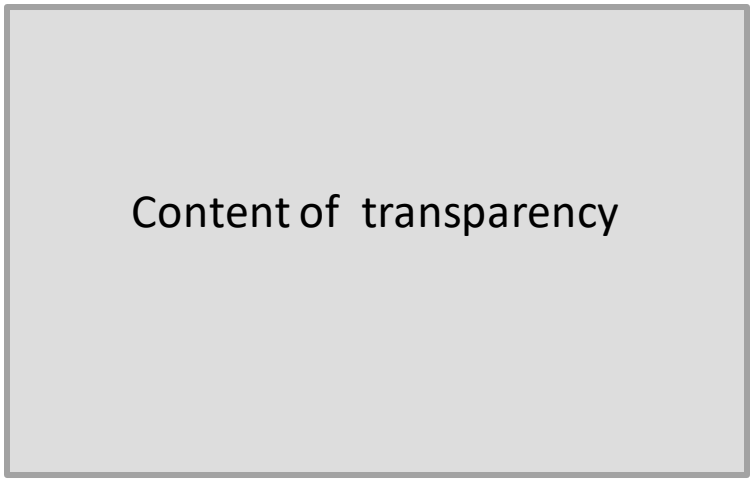
Thank you for your attention

Staszek

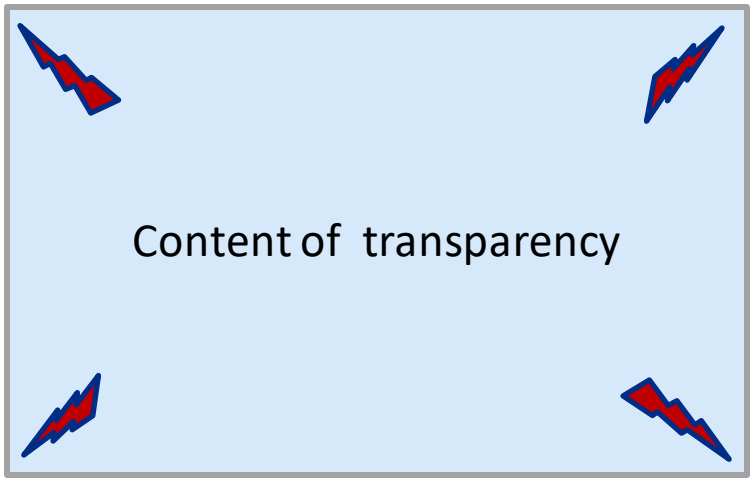


But it is not all…, see next …

Ordinary speaker



Staszek



Discussion after the talk:

Question:
What is this …something at the corners of the slide?

Answer:
Decoration

Have you ever seen slides with decoration at the seminars or conferences?

This is precisely Staszak !!!

One particle correlations – is it possible?
Yes, see the talk of Staszek at this meeting

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THE INTERNATIONAL JOURNAL OF NUCLEAR RESEARCH

"DEMON IN WARSAW"
INTERNATIONAL MEETING
ON DEMON DETECTOR RELATED
HEAVY ION PHYSICS

Please, read it slowly and carefully.
It deserves more than attention.

POLISH NUCLEAR SOCIETY
NATIONAL ATOMIC ENERGY AGENCY

INSTITUTE OF NUCLEAR CHEMISTRY AND TECHNOLOGY
WARSZAWA 1998

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TWO-PARTICLE CORRELATION AND BOUND STATE FORMATION - TWO SIDES OF THE SAME MEDAL -

S. Mrówczyński[1]

SOŁTAN INSTITUTE FOR NUCLEAR STUDIES, UL. HOŻA 69, PL - 00-681 WARSAW, POLAND
AND INSTITUTE OF PHYSICS, PEDAGOGICAL UNIVERSITY, UL. KONOPNICKIEJ 15, PL - 25-406 KIELCE, POLAND

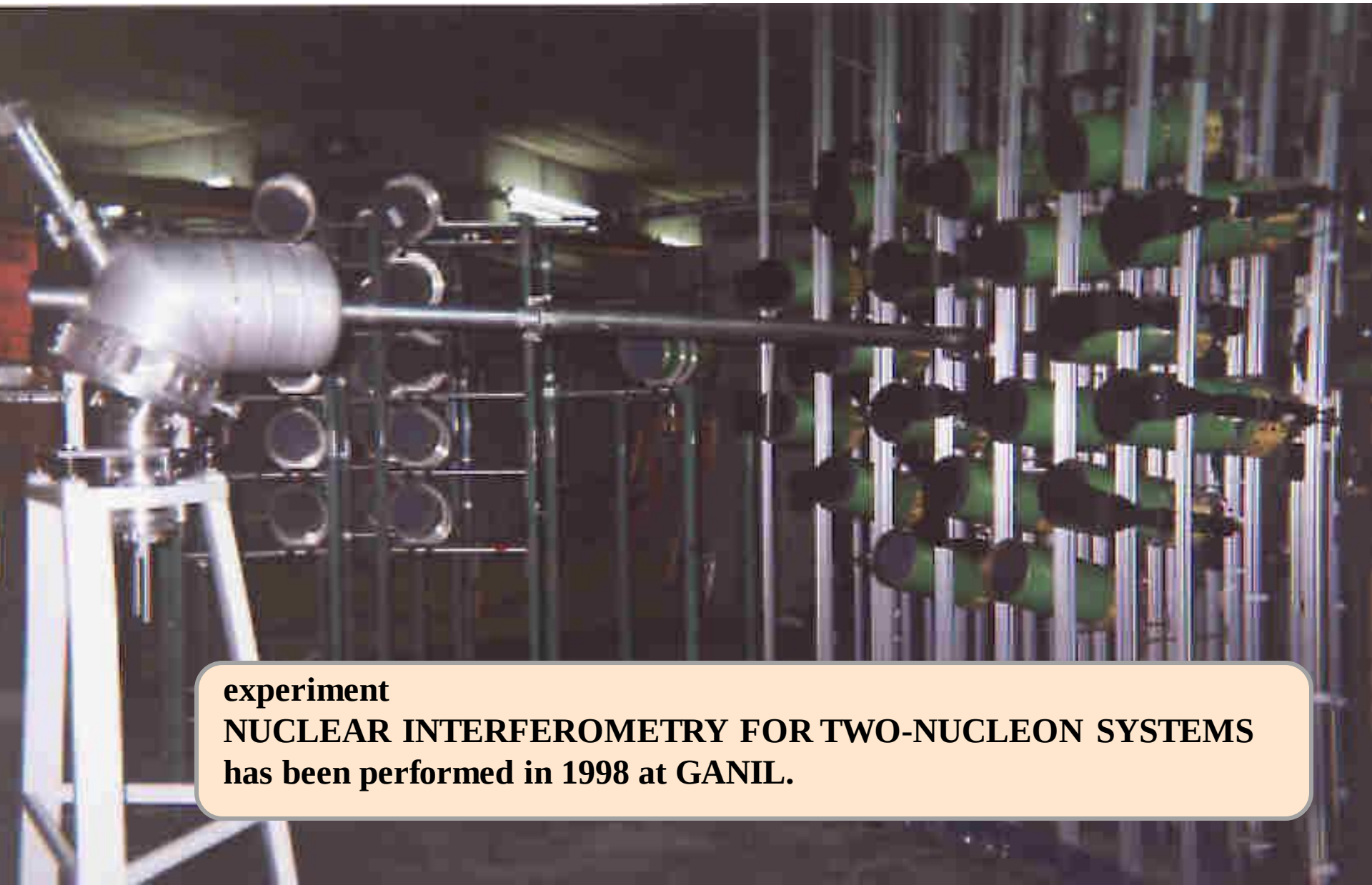
The correlations of nucleons with small relative momenta and the deuteron or antideuteron formation are both due to the final state interactions. We calculate in parallel the neutron–proton correlation function and the (anti-)deuteron formation rate. The two quantities are expressed through the space-time parameters of the particle source created in nucleus–nucleus collisions. In the case of baryon reach sources, the nucleons are emitted from the whole source volume while the antinucleons dominantly from the surface due to the antinucleon absorption in the baryon environment. Thus, the shape of the antinucleon source is different from the nucleon one, and consequently the antideuteron formation rate is substantially smaller than that one of deuterons. The correlation function is shown to satisfy the sum rule, which, in particular, connects the number of correlated neutron-proton pairs to the number of produced deuterons. The sum rule applications are briefly discussed.

1. INTRODUCTION

The measurements of two-particle correlations are well known to provide information about space-time characteristics of particle sources in nuclear collisions for bombarding energies from tens of MeV [1] to hundreds of GeV [2]. One usually deals with pairs of identical particles - protons and pions. However, the correlations of nonidentical particles and the probabilities of bound state formation determine the space-time size of particle sources as well. The neutron--proton pairs are of particular interest here since one can study the two-particle correlation and bound state formation with the same particles. It is important to stress that the correlation between neutron and proton with 'small' relative momentum and the deuteron formation both appear due to the final state interaction.

[1]E-mail: MROW@FUW.EDU.PL

OK, lets mesure simultaneously proton-neutron correlations and deuteron production.



experiment
NUCLEAR INTERFEROMETRY FOR TWO-NUCLEON SYSTEMS
has been performed in 1998 at GANIL.

2-nd Warsaw Meeting on Particle Correlations and Resonances in Heavy Ion Collisions, October, 2003

Happy Birthday Staszek

Janek