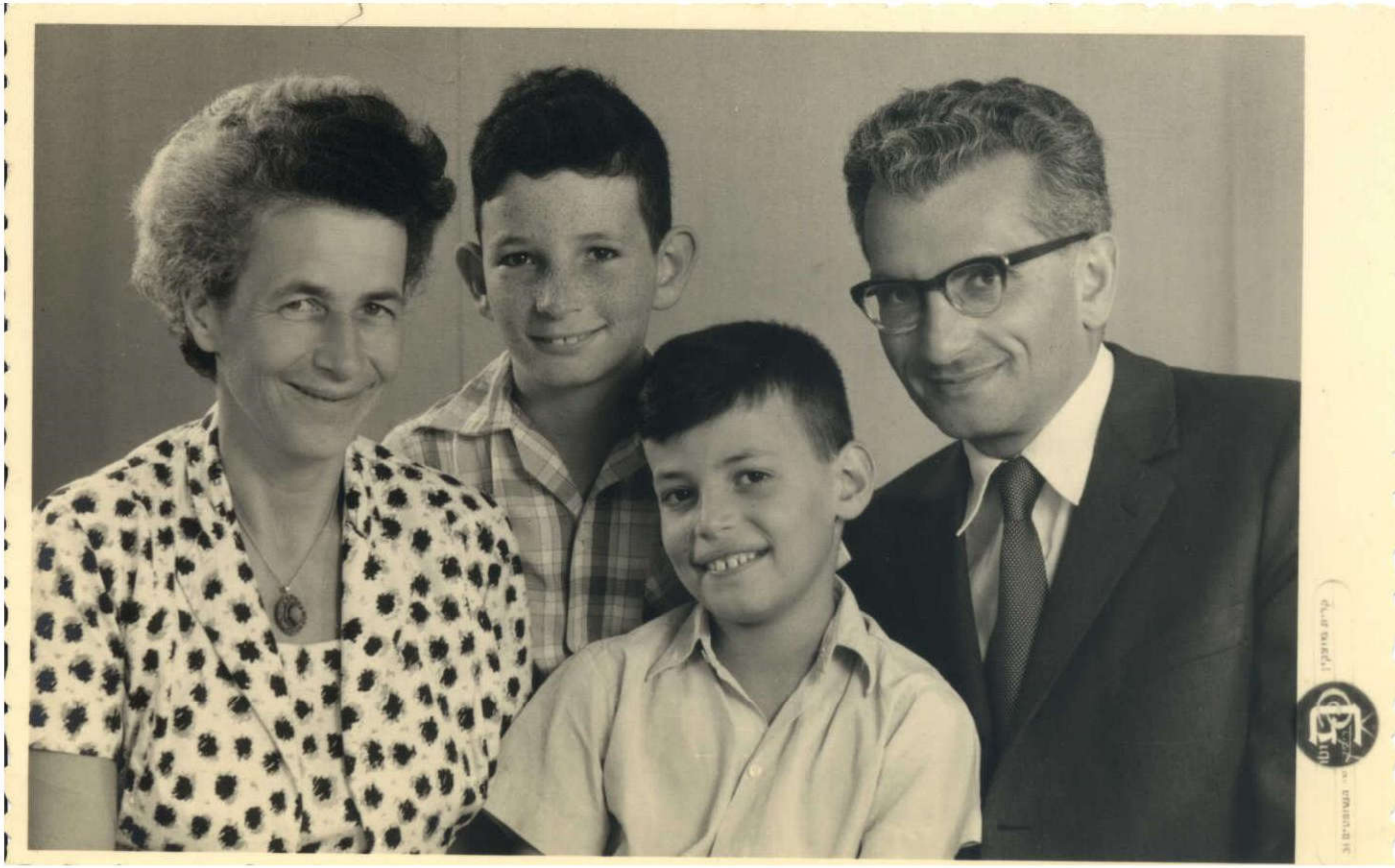
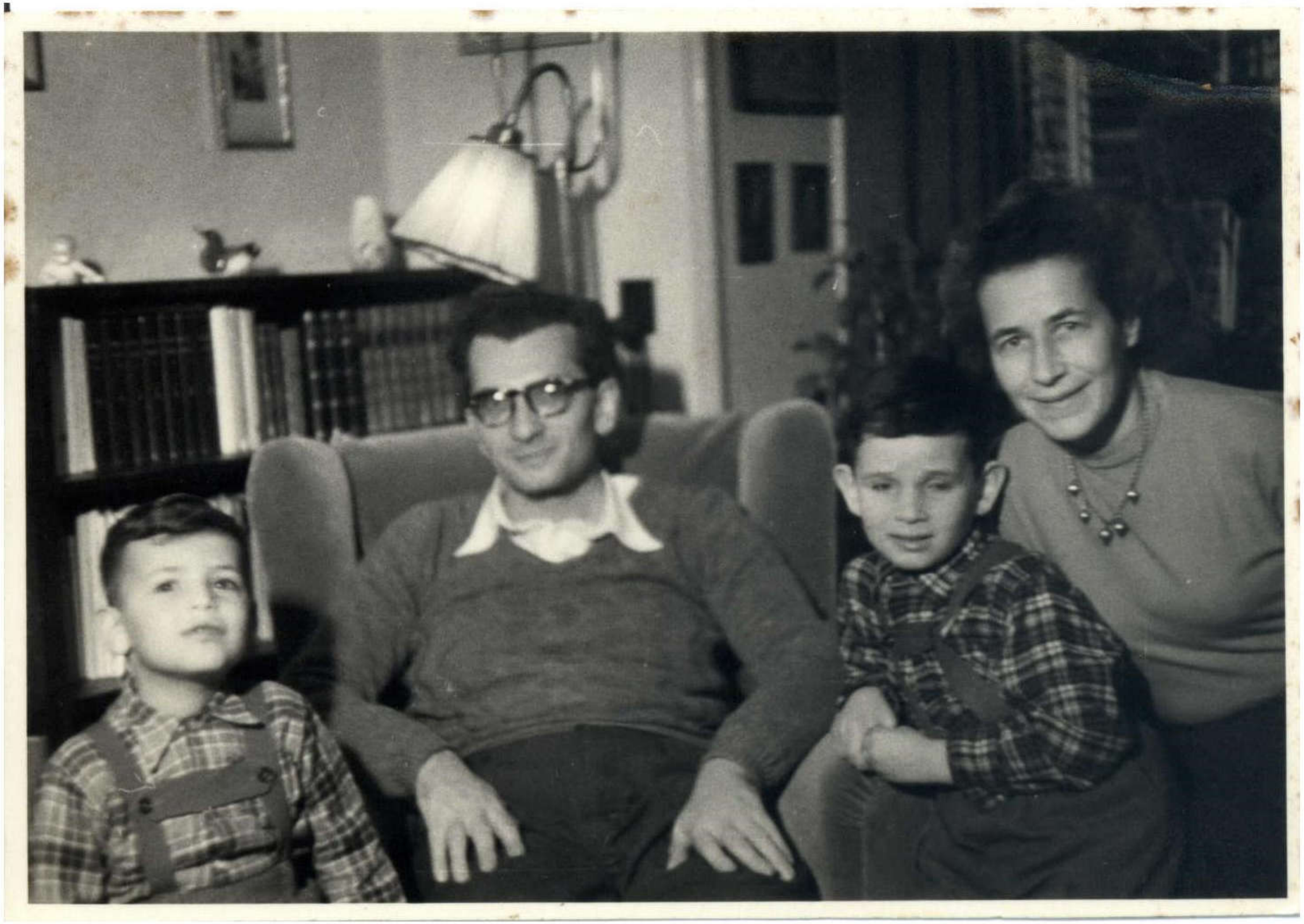
Honoring Doron

At his 70th Birthday

Beginnings





With Colleagues


The q-TSPP Theorem
1, 2, 5, 16, 66, 352,
2431, 21760,
252586, ...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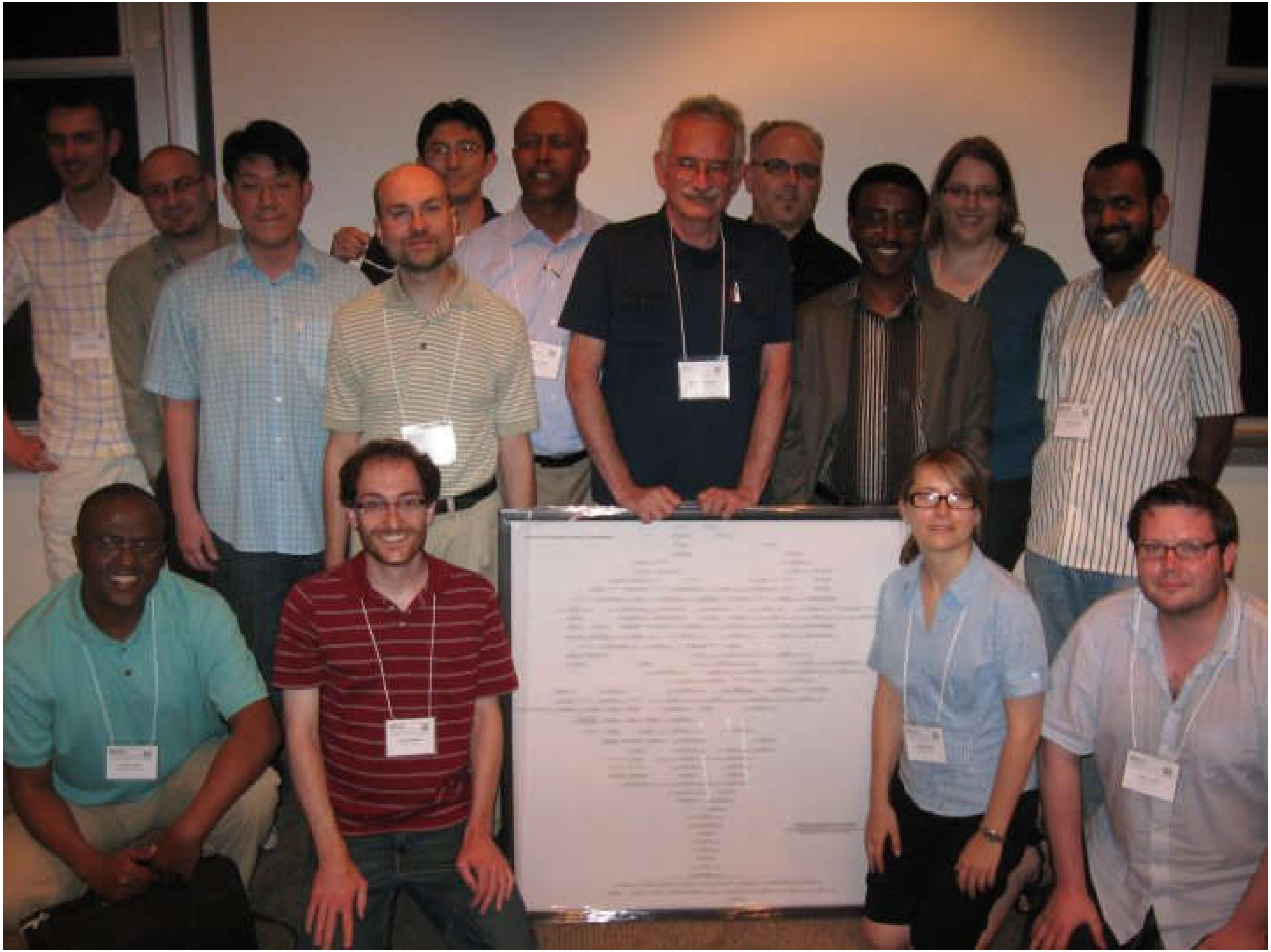
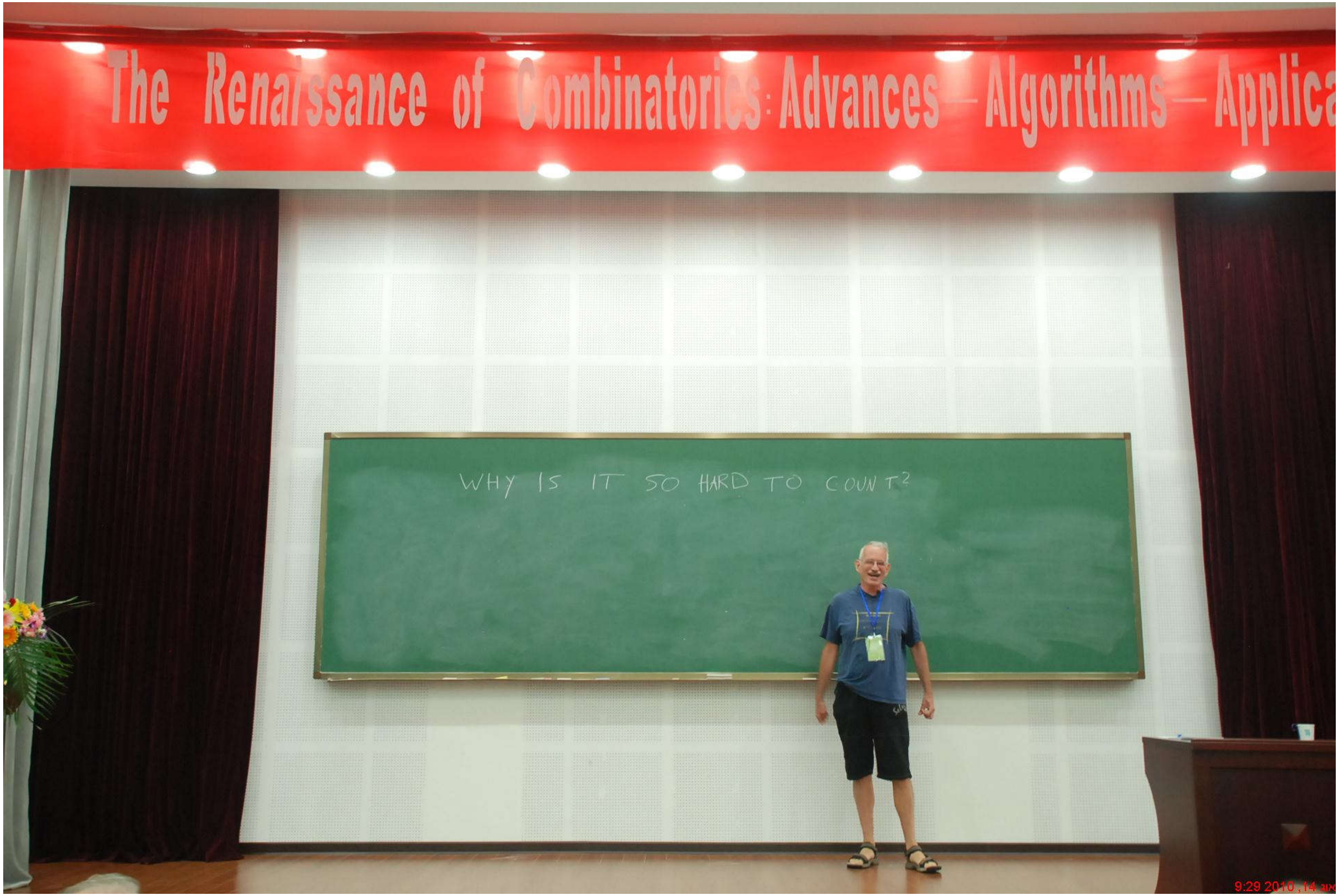
2018/7/21 04:54



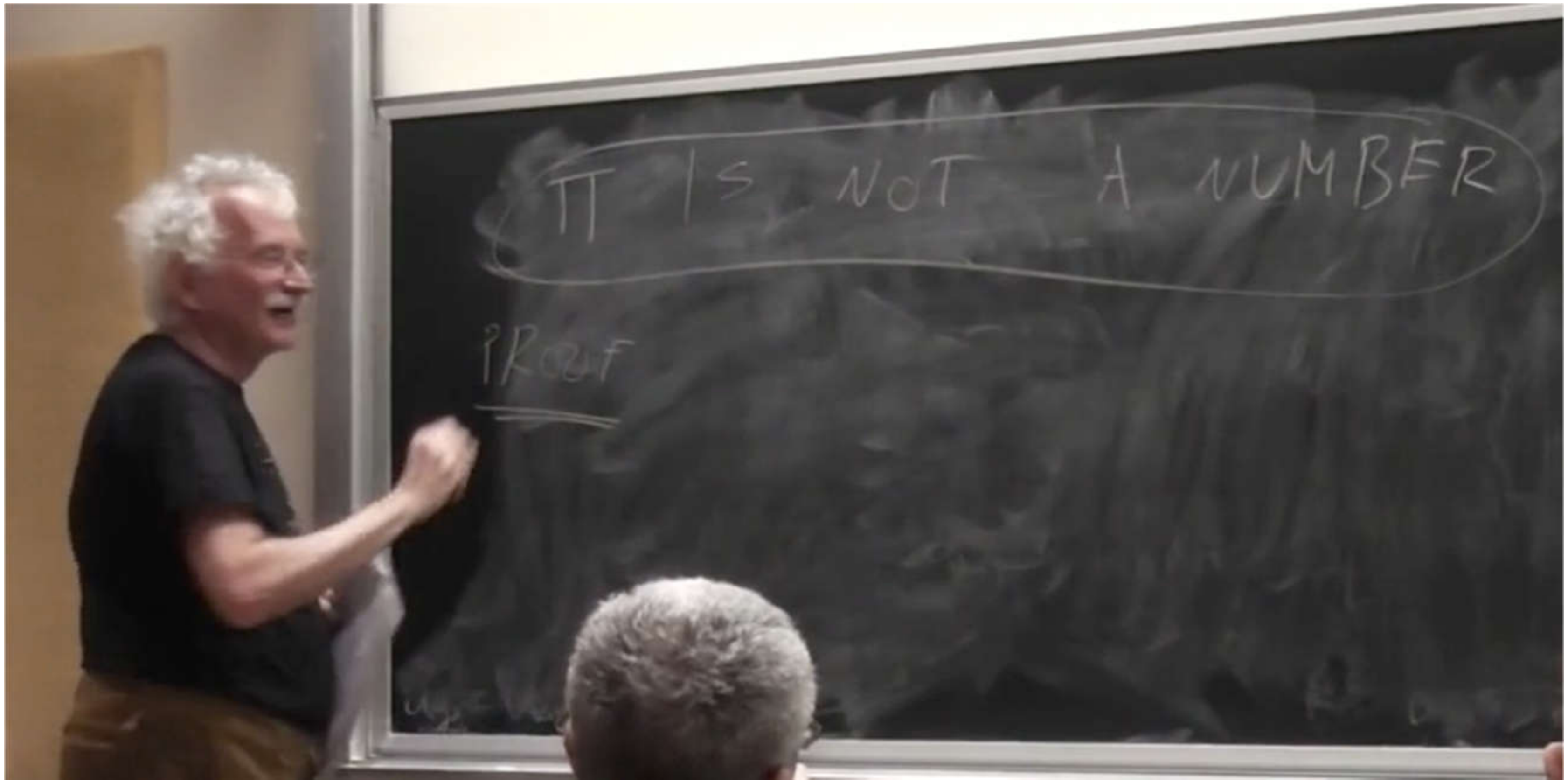

2018/7/21 04:54

DZ Lectures


Doron Zeilberger

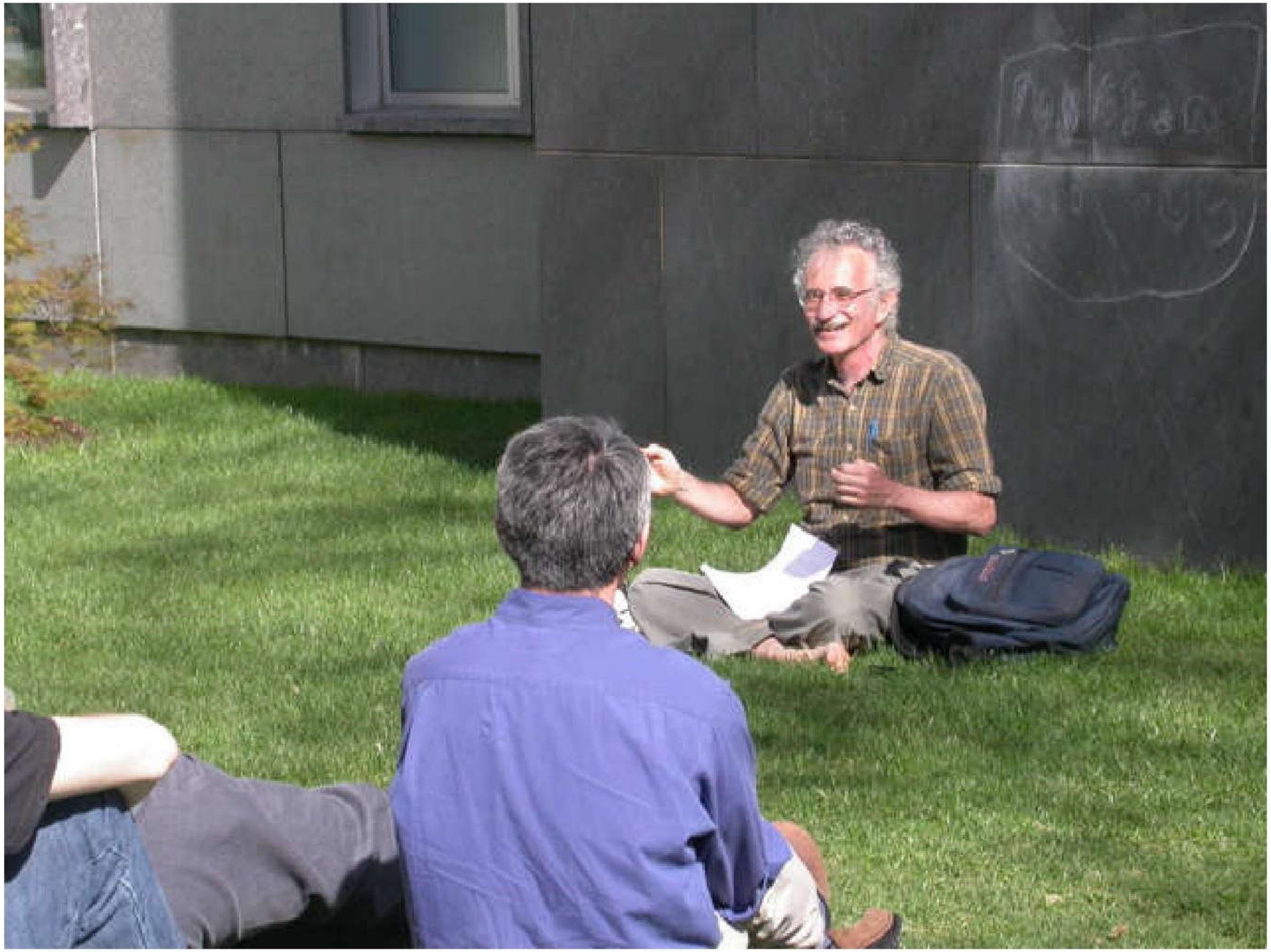


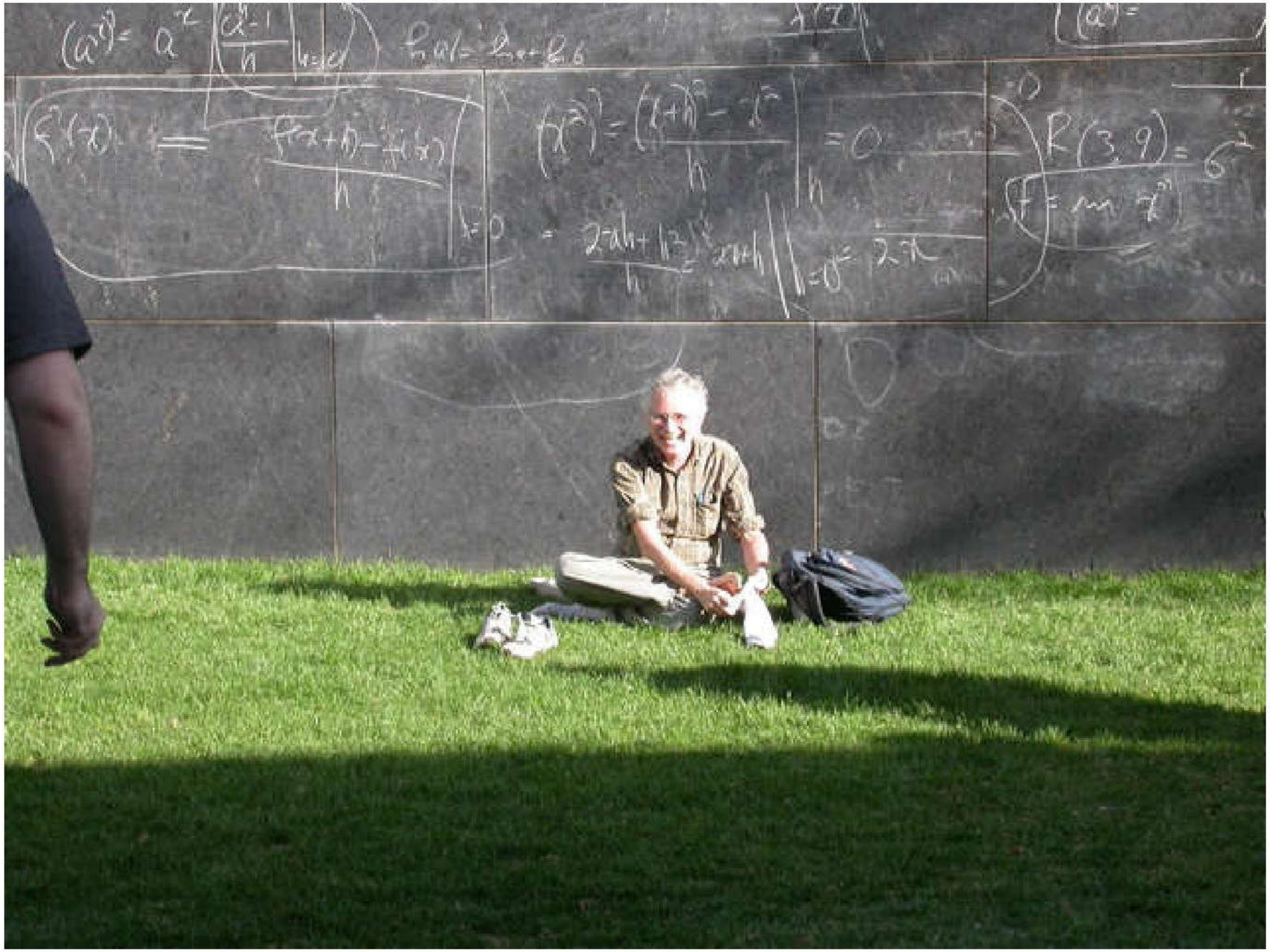
The Renaissance of Combinatorics: Advances — Algorithms — Applica
WHY IS IT SO HARD TO COUNT?
9:29 2010 ,14 אוג


π IS NOT A NUMBER
PROOF


EJC
AVOIDING

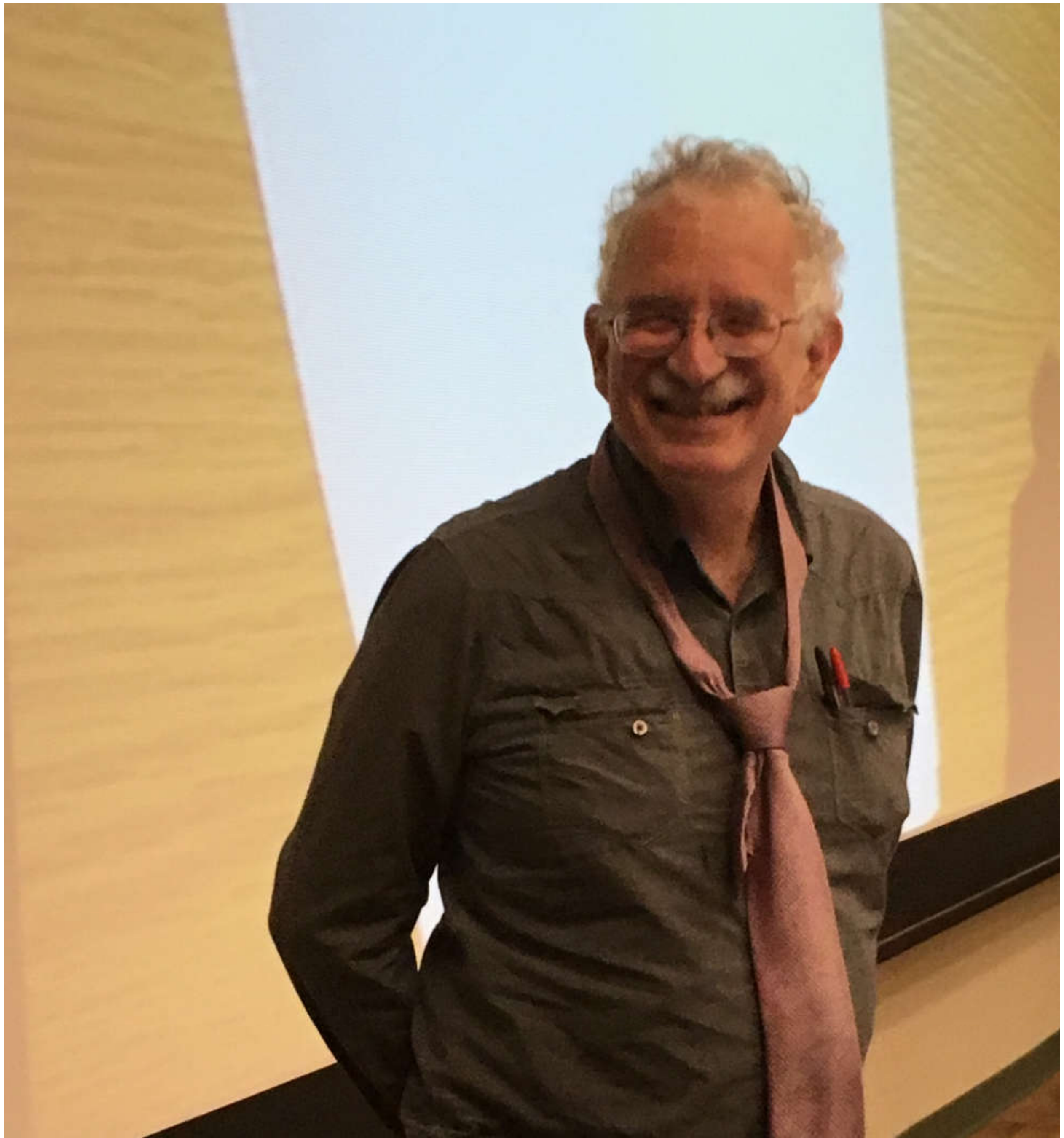

WZ THEORY ⇒ 5
a(n) := $\sum_{k=0}^{n}$ F(n, k) ⇒
EXIT



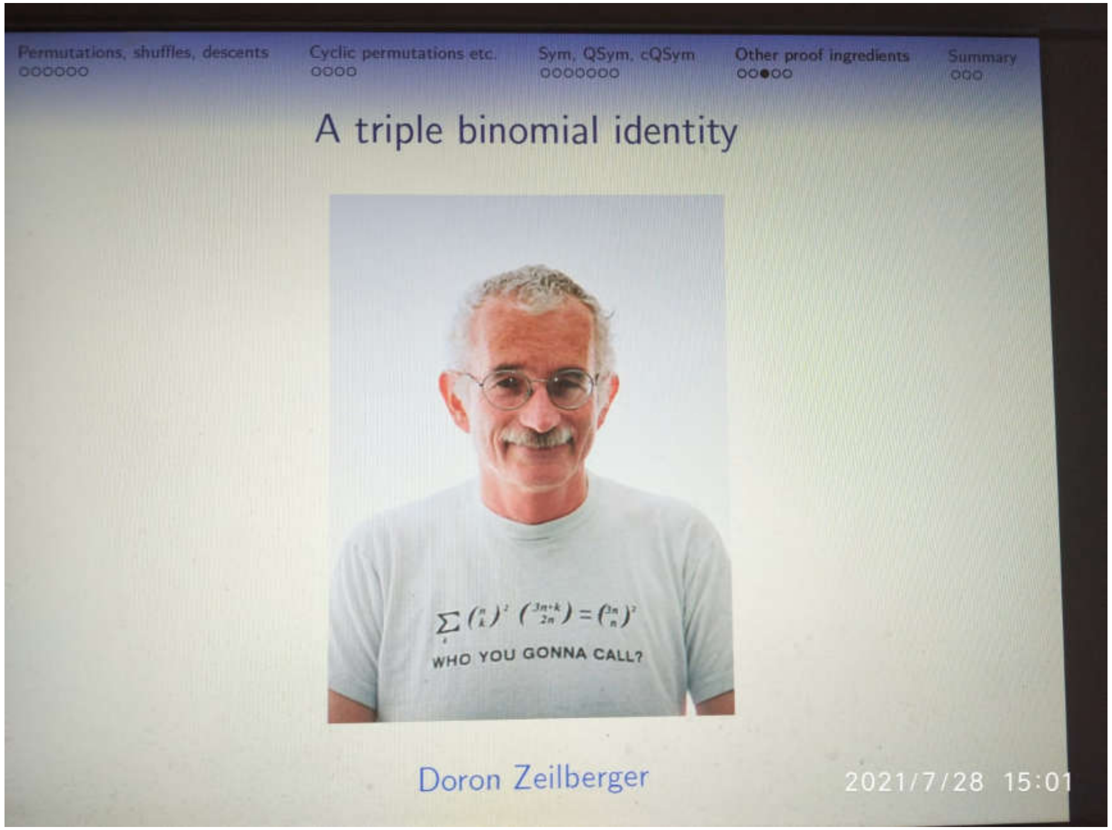



אוג 16, 2010 18:12

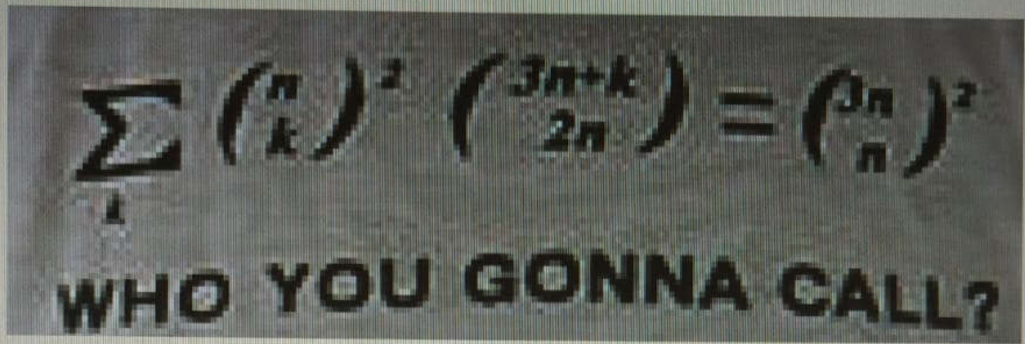
DZ in a tie ???



And with T-shirts, of course



A triple binomial identity



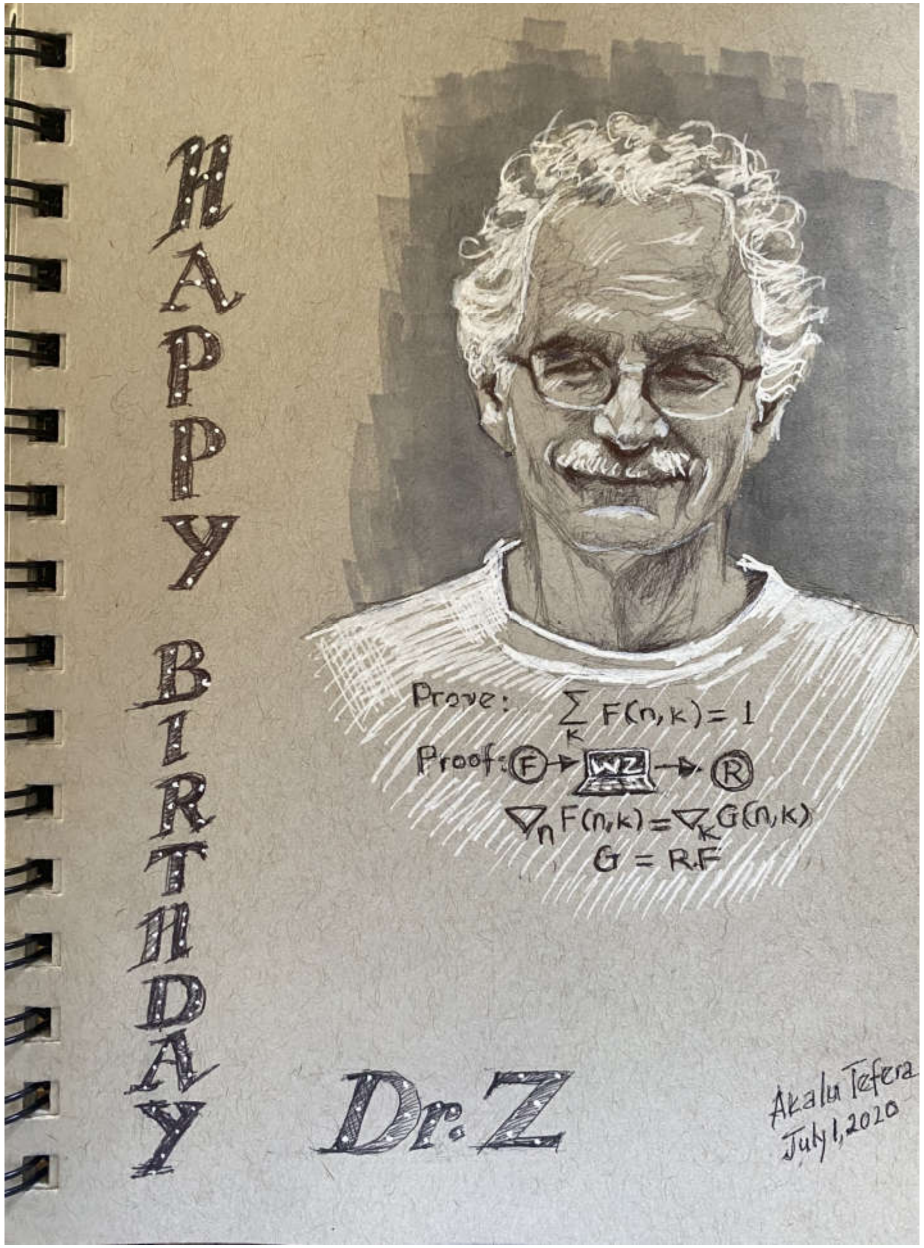
This is a special case of the triple-binomial identity

$$\sum_k \binom{m-x+y}{k}\binom{n-y+x}{n-k}\binom{x+k}{m+n} = \binom{x}{m}\binom{y}{n}$$

which is equivalent to the hypergeometric identity

$${}_3F_2\left(\left.\begin{matrix} a, b, -n \\ c, a+b-c-n+1 \end{matrix}\right| 1\right) = \frac{(c-a)^{\overline{n}}(c-b)^{\overline{n}}}{c^{\overline{n}}(c-a-b)^{\overline{n}}}$$

due to Pfaff (1797) and Saalschütz (1890). We use the general case.


HAPPY BIRTHDAY
Prove: $\sum_k F(n,k) = 1$
Proof: F → WZ → R
$\nabla_n F(n,k) = \nabla_k G(n,k)$
$G = R.F$
Dr. Z
Akalu Tefera
July 1, 2020

MAZAL TOV

Doron !

AD 120 !