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March 12 , 2015

Professor Vitaly Milman
President of the Israel Mathematical Union

Dear Professor Milman,

2015 Nesyahu Prize in Mathematics

The 2015 Nesyahu Prize Committee has met on March 11th 2015, and after much deliberations decided to award the prize jointly to **Dr. Alon Nishry** from the Tel-Aviv University and **Dr. Doron Puder** from the Hebrew University of Jerusalem.

The members of the committee were Dr. Nadya Gurevich, Prof. Bo'az Klartag, and the undersigned (chair).

Here are the reasons for our decision.

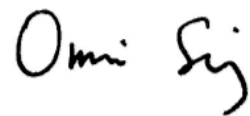
Dr. Alon Nishry

Alon Nishry's thesis is a major contribution to the theory of random analytic functions. The thesis, which was carried out under the supervision of Professor Mikhail Sodin from the Tel-Aviv University, proves a conjecture of J.-P. Kahane from 1968 on the range of a Rademacher random power series with finite radius of convergence (joint with M. Sodin and F. Nazarov), and provides an unexpected explicit general estimate for the exponential decay of the probability that a Gaussian random entire function has no zeroes in a disc of radius r (solo). These are fundamental results that are bound to become classics.

Dr. Doron Puder

Doron Puder's thesis is a major contribution to geometric group theory. The thesis, which was carried out under the supervision of Professor Nati Linial from the Hebrew University of Jerusalem, solves a conjecture of Gelfand, Lubotzky and Shalev by characterizing the primitive words as those words which generate measure preserving word maps (joint in part with Ori Parzanchevski). The proof introduces a beautiful new tool, "primitivity rank", and ties it to a remarkable asymptotic formula for the expected number of fixed points of random permutations. Perhaps the most impressive success of this theory is a new approach to Alon's conjecture on the spectral gap of a random regular graph (solo). These results are genuine gems, both in terms of their beauty and in terms of their potential importance.

Sincerely,

A handwritten signature in black ink that reads "Omri Sarig". The letters are cursive and fluid, with the first letter of each name being capitalized and larger than the others.

Prof. Omri Sarig,
Chairman of the 2015 Nessyahu Award Committee