## **Contents**

On the geometry of thin exceptional sets in	
Manin's conjecture	
BRIAN LEHMANN and SHO TANIMOTO	2815
Moduli of curves as moduli of $A_{\infty}$ -structures	
ALEXANDER POLISHCHUK	2871
Rank, combinatorial cost, and homology torsion	
growth in higher rank lattices	
MIKLOS ABERT, TSACHIK GELANDER, and	
NIKOLAY NIKOLOV	2925
A product for permutation groups and	
topological groups	
SIMON M. SMITH	2965