

Readings and Discussion Questions

Thursday August 31

Read Chapters: 2.2.2, 2.2.3

Discussion Questions

1. The converse of the mean value property is stated in Theorem 3 for mean values over spheres. Is the same true for mean values over balls?
2. In what way is the “strong maximum principle”(Theorem 4(ii)) stronger than Theorem 4(i)?
3. What is the meaning of $\alpha(n)$ in section 2.2.3?
4. Can you generalize Liouville’s Theorem to the following: every harmonic function on \mathbb{R}^n of polynomial growth must be a polynomial?
5. What is the relationship between Theorem 9 and Theorem 1?