

# KERALA SCHOOL OF MATHEMATICS

## Refresher Course for College Teachers working in Kerala

19-22 February, 2015

Measure Theory

Time Schedule

Registration : 19-02-2015 at 8.45 AM

| Date      | 09.30-10.45 | 10.45-11.00 | 11.00-12.15 | 12.15-01.45 | 01.45-02.45 | 02.45-03.00 | 3:00-4:00 | 4:00-5:00 |
|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|-----------|
| 19-Feb-15 | BVR         | Break       | JM          | Lunch       | BVR         | Break       | AKV       | Tutorial  |
| 20-Feb-15 | BVR         |             | JM          |             | BVR         |             | AKV       | Tutorial  |
| 21-Feb-15 | BVR         |             | JM          |             | BVR         |             | AKV       | Tutorial  |
| 22-Feb-15 | BVR         |             | JM          |             | BVR         |             | AKV       | Tutorial  |

### Resource Persons:

BVR: Prof. B V Rao, CMI Chennai

JM : Prof. Joseph Mathew, KSOM

AKV : Dr. A K Vijayarajan, KSOM

### Topics:

**Prof. B V Rao & Prof. Joseph Mathew**

- 1 Quick review of basic measure theory including Monotone Class theorem, Caratheodory extension; MCT, DCT, Fatou;
- 2 Radon-Nikodym theorem; Lebesgue decomposition; various notions of convergence;
3. Product spaces and Fubini;
4.  $L_p$  spaces; Specializing to  $p=2$  simple introduction to Fourier series.

**Dr. A K Vijayarajan**

Spectral Measures