

# Mitigation of stray magnetic fields in MICE

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## Editors:

- **KL:** Sections 1, 5 and 6;
- **MG:** Section 3 (KL and IT will fill in while MG away); and
- **IT:** Sections 2 and 4.

## 1 Introduction

### 1.1 The need for stray-field mitigation

**Lead author:** PS/CM/MC

### 1.2 West Wall mezzanine and Rack Room 2

**Lead author:** JT

### 1.3 Overview of strategy

**Lead author:** KL

## 2 Magnetic model of the MICE Hall

**Lead author:** PS

This section should include an appropriate discussion of the steps taken to validate the Hall model:

- Review by Vector fields; and
- (Limited) measurements.

## 3 Baseline magnetic mitigation scheme

### 3.1 Overview

**Lead author:** PS

### 3.2 Inventory of sensitive items

**Lead author:** CM

### **3.3 Tracker readout systems**

**Lead author:** KM

### **3.4 Racks and compressors**

**Lead author:** MG

### **3.5 Cost, schedule and risk**

**Lead author:** CM/KL/RP

### **3.6 Summary**

**Lead author:** CM/KL

## **4 Partial return yoke**

### **4.1 Overview**

**Lead author:** HW

### **4.2 Magnetic design**

**Lead author:** HW

### **4.3 Mechanical design**

**Lead author:** SP

### **4.4 Implementation in the MICE Hall**

**Lead author:** JT

### **4.5 Cost, schedule and risk**

**Lead author:** HW/JT/RP

### **4.6 Summary**

**Lead author:** JT/HW

## **5 Recommended action**

**Lead author:** KL

## **6 Conclusions**

**Lead author:** KL

## **References**