

# SAIP2013



Contribution ID : 215

## **First year astronomy students' interpretation of the term "radiation"**

Wednesday 10 Jul 2013 at 09:00 (00h20')

### **Abstract :**

One of the difficulties when dealing with issues relating to language is that apparent familiarity with terms can often mask differences between their popular usage and their technical definitions. The result is that while a superficially intelligible exchange might occur between a novice and an expert (or even between experts), their "mental pictures" might be quite different. The present study forms part of a larger project in which we aim to probe students' interpretation of the terms "radiation" and "radioactivity", with a public understanding of science in mind. As part of the piloting phase of the main project we included a question regarding the term "radiation" in a recently designed instrument, the Introductory Astronomy Questionnaire (IAQ), discussed in an accompanying presentation. The IAQ was given to the first year astronomy class at the University of Cape Town prior to instruction. The responses which included short written answers were analysed using an approach suggested by grounded theory. We present results from the preliminary analysis of the data. We also comment on how the term "radiation" is used and defined in various physics textbooks and dictionaries.

### **Award :**

Yes

### **Level :**

MSc

### **Supervisor :**

Saalih Allie, saalih.allie@uct.ac.za, University of Cape Town

### **Paper :**

yes

**Primary authors :** Ms. TAKANE, Mpeli (University of Cape Town- Masters student)

**Co-authors :** Mr. RAJPAUL, Vinesh (University of Cape Town) ; Prof. ALLIE, Saalih (University of Cape Town)

**Presenter :** Ms. TAKANE, Mpeli (University of Cape Town- Masters student)

**Session classification :** Education

**Track classification :** Track E - Physics Education

**Type :** Oral Presentation