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## An investigation of students' approaches in solving kinematic problems using linear equations of motion

*Tuesday, 4 July 2017 11:10 (20 minutes)*

The presentation reports on a study investigating students' approaches in solving kinematic problems in the first year mainstream mechanics module, PHY111, in the Department of Physics at the University of the Western Cape. The module PHY111 focuses on explicit problem solving approach cognition and pedagogy. Pedagogy encourages students to actively participate through cooperative learning in class. It also engages students to model the problem and understand the physics concepts involved. The study investigated the type of problem solvers first year physics students are as well as the influence which the explicit problem solving approach of the PHY111 module had on their approaches in solving kinematic problems. This process was done by profiling students' problem solving approaches using pre-and post- surveys. An overview of the module PHY111 explicit problem approach in solving kinematic problems using linear equations of motion will be given in this presentation as well as the findings of the surveys.

**Apply to be considered for a student award (Yes / No)?**

Yes

**Level for award (Hons, MSc, PhD, N/A)?**

MSc

**Main supervisor (name and email) and his / her institution**

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**Would you like to submit a short paper for the Conference Proceedings (Yes / No)?**

Yes

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