## 17 - Science Teaching at the University Level | Empirical

## SP - (16196) - IDENTIFYING NEWTON'S THIRD LAW LEARNING DEMANDS AT UNIVERSITY INTRODUCTORY PHYSICS

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## **Short Abstract**

The research bibliography on science teaching for Newtonian mechanics confirms teaching and learning difficulties regarding Newton's Laws. This presentation is going to focus on the results of an epistemological analysis on the type of Force concept and the law of action and reaction to justify key learning ideas at first year University level. We will use an empirical study to demonstrate the high learning demand for the key ideas we have identified. The research outcomes will be demonstrated in the presentation.