

Important link for use during workshop:  
<https://pages.uoregon.edu/sokoloff/HomeAdaptedILDs.html>

## ***VIRTUAL WORKSHOP***

### ***Home-Adapted ILDS—Interactive Lecture Demonstrations Adapted for Active Virtual Learning***

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**Abstract.** The pandemic inspired a need for distance learning materials that still exists in many parts of the world. Is it possible to maintain active learning for our students in virtual settings? Home-Adapted ILDs bridge this gap. They retain predictions as an essential element in engaging students and make use of the wealth of multi-media materials for observations of the physical world. We will first review PER-validated design features of ILDs and then work with examples of Home-Adapted ILDs.

#### **Interactive Lecture Demonstrations**

Interactive Lecture Demonstrations (ILDs) were first developed in the 1990s as an active learning strategy to enhance student learning in a large (or small) lecture class. [1], [2] They use an eight-step procedure including predictions and small group discussions to engage students more deeply in the learning process. They have been extensively research-validated at the secondary and university levels. ILDs in 28 different topic areas covered in the introductory physics course have been developed and published in a book. [3], [4] Over the years, many workshops on ILDs have been presented to thousands of physics faculty around the world, including several at previous GIREP conferences.

#### **Home-Adapted ILDs**

With the arrival of the pandemic in Spring, 2020, a need for distance learning materials arose that still exists in many parts of the world today. The question: “Is it possible to maintain active learning for our students in virtual settings?” Home-Adapted ILDs bridge this gap. [5] They retain predictions as an essential element in engaging students and make use of the wealth of multi-media materials available virtually online for observations of the physical world. During the first several months of the pandemic, they were developed for most of the topics in the published ILD book. [3], [4]

#### **The Workshop**

We will first review the origins and PER-basis for ILDs and Home-Adapted ILDs. Then we will work hands-on with examples of Home-Adapted ILDs in a number of different topic areas.

#### **References**

- [1] David R. Sokoloff and Ronald K. Thornton, “Using *Interactive Lecture Demonstrations* to Create an Active Learning Environment,” *Phys. Teach.* 35: 6, 340 (1997).
- [2] David R. Sokoloff, “Active Learning of Introductory Light and Optics,” *Phys. Teach.* 54: 1, 18 (2016).
- [3] David R. Sokoloff and Ronald K. Thornton, *Interactive Lecture Demonstrations* (Hoboken, NJ, John Wiley and Sons, 2004).
- [4] <https://pages.uoregon.edu/sokoloff/ILDbook0116.pdf>
- [5] <https://pages.uoregon.edu/sokoloff/HomeAdaptedILDs.html>