

## Workshops in Structural Balancing, Restoration and Modeling

How to create geologically reasonable and accurate interpretations

**Bring your own Cross-sections and Questions!**



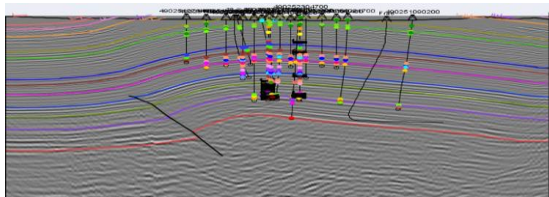
**Dr. Catalina Luneburg**  
Structural Geology Expert and  
President of TerraEx Group

A geologically viable and accurate interpretation is the first and most critical step in minimizing error and uncertainty in all your E&P workflows. In our Open Forum Training you will learn how to validate and optimize your geologic interpretation through simple methods of cross-section balancing and structural restorations.

Learn more about our [workshop series](#) and [click here](#) to register or contact us at [info@terraexgroup.com](mailto:info@terraexgroup.com), ++(303) 319 3043

### Workshop 3 – Sept. 18<sup>th</sup> 2018, Houston TX

#### “Validating your section through Balancing and Restoration”



Learn how to validate and improve your interpretation with simple methods of cross section balancing and restoration such as fault prediction, hangingwall geometry prediction, quick restorations and balancing tools that not only illustrate potential problems in interpretation but also allow to correct these problems.

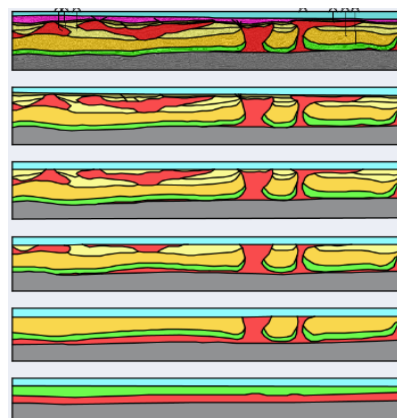
- Validation concepts: admissibility, accuracy, restoration and balancing
- Kinematic models of restoration and balancing: rigid block, simple shear, flexural slip, trishear
- The restoration process and restoration rules
- Line-length and area balancing and the concept of a pin line
- Single-step and time-step restorations, Independent and contiguous restoration, Backstripping and forward modeling
- Method of fault prediction and depth to detachment
- Restoration scenarios: Planar, Listric, Ramp flat, Fault-related fold, Extensional/compressional, thrust sequences, Salt-related deformation, Fractures and strain

### Workshop 4 – Sept. 19<sup>th</sup> 2018, Houston TX

#### “Structural Modeling with LithoTect Software”

Overview of LithoTect Software structural restoration and modeling tools for section balancing, backstripping, time-step restorations, decompaction and isostasy, fault prediction etc. This open topic forum is for beginners as well as experienced LithoTect users interested in software applications for different tectonic scenarios

- Overview of main LithoTect functionality
- Section construction and Seismic interpretation tools
- Kinematic models in compressional and extensional restoration
- Fault slip modeling and interactive modeling
- Transform restoration: vertical/oblique shear and flexural slip
- Fault Prediction tool and depth to detachment
- Forward Modeling techniques
- Geometry Fields: dip, curvature, strain
- Restoration methods: independent and contiguous restoration



**INSTRUCTOR:**

**Dr. Catalina Luneburg** is a recognized Structural Geology expert in a variety of basins and petroleum systems worldwide, focusing on geologic interpretation and validation, Structural Geology modeling, cross-section balancing and 2D/3D time-step restorations as well as HC reserve estimates, 3D framework building and fracture prediction analyses. Luneburg is the owner and director of TerraEx Group, a Geoscience Training and Consulting company. Previously, Luneburg worked for Landmark/Halliburton, GeoLogic Systems and Midland Valley, and spent many years in academic teaching and research. Luneburg holds a doctorate in Natural Sciences from the Swiss Federal Institute of Technology in Zurich, Switzerland, and a master's degree (Diploma) in Geology/Paleontology from the Ludwig-Maximilian University in Munich, Germany. She has published extensively in her field including several books and has authored a number of patents.

**LOGISTICS**

**Venue:** Texas Training and Conference Center, Houston TX; 8:30 am – 4 pm, breakfast from 8 am on

**Price:** Open Forum Training 18<sup>th</sup> – 19<sup>th</sup> September 2018; \$290

**Workshop 3 - 18<sup>th</sup> September 2018; Regular \$185, discounted\* \$145**

**Workshop 4 - 19<sup>th</sup> September 2018; Regular \$185, discounted\* \$145**

**Included:** Training manual, hot lunch buffet, breakfast, beverages

**Register:** [Click here](#) to submit form or contact TerraEx Group  
at [info@terraexgroup.com](mailto:info@terraexgroup.com), + (303) 319 3043

*\*TerraEx Group clients; more than two people from same company; two workshops booked; early bird registration before Sept. 10<sup>th</sup>2018*