



## Contenido del curso INTRODUCCIÓN A LAS FAJAS PLEGADAS Y CORRIDAS

### I. Las fajas plegadas y corridas (FPC)

- Introducción
- Nomenclaturas de estructuras dentro de una FPC
- Tipo de fajas plegadas y corridas.
- Fajas plegadas y corridas de piel fina y de piel gruesa
- Mecanismos de formación (cuña de Coulomb) y zonación de una FPC
- Corrimientos fuera de secuencia (*out-of-sequence-thrust, OST*)
- Cuencas de antepaís y su utilidad para conocer la historia de deformación de la FPC

### II. Sistemas de corrimientos

- Sistemas imbricados
- Sistemas duplex
- Zonas triangulares

### III. Modelos geométricos y cinemáticos de pliegues relacionados a fallas

- Introducción
- Pliegues de flexión de falla (*fault-bend-folding*)
  - Cizalla interestratal
- Pliegues de flexión de falla con cizalla simple (*simple shear fault -bend-folding*)
- Pliegues de flexión de falla con cizalla pura (*pure shear fault -bend-folding*)
- Pliegues de propagación de falla (*fault -propagation-folding*)
  - Pliegues de propagación de falla de espesor constante
  - Pliegues de propagación de falla de charnela fija (espesor No constante)
  - Pliegues de propagación de falla transportados (*break-through-fault -propagation-folding*)
- Pliegues por despegue (*detachment-folding*)
- Pliegues de propagación despegue (*fault-propagation/detachment-folding*)
- Modelos hacia delante (*forward-modeling*) y modelos hacia atrás (*backward-modeling*)
- Pliegues de propagación de falla de cizalla triangular (*trishear fault -propagation-folding*)
  - Los principales parámetros del modelo de *trishear*
  - Trishear* en 3 dimensiones
  - Software* para aplicar el modelo de *trishear*
- Flujo paralelo a la falla (*fault parallel flow*)
- Cizalla Inclinada (*incline shear*)
- Cizalla triangular del limbo dorsal (*back-limb-trishear*) un modelo integrador.

### IV. Principios de funcionamiento de los programas de balanceo

- GeoSec 2D
- 2D Move
- Trishear
- Pliegues 2D

### V. Construcción de secciones balanceadas en FPC de piel fina

- En forma manual. Método de los dominios.
- Con el uso de software.

### VI. Estratos de crecimiento (*growth-strata*)

- Crecimiento en pliegues de flexión de falla
- Crecimiento en pliegues de propagación de falla
- Modelos de rotación instantánea vs. rotación progresiva
- Crecimiento en pliegues de *trishear* y *back-limb-trishear*
- Diagramas de separación vertical
- Configuración 3D de estratos de crecimiento
- Análisis de estratos de crecimiento en mapas

### VII. Inversión tectónica

- Estructuras extensionales
  - Estructuras de *rollover* y crecimiento en fallas directas
  - Estructuras doble *rollover*
  - Despegue inferior de un sistema extensional
- Estructuras de inversión tectónica
- Reactivación selectiva en regiones de inversión tectónica

**VIII. Construcción de secciones balanceadas en FPC de piel gruesa**

En forma manual.  
Con el uso de software.

**IX. Reconstrucción palinspástica. Cálculo de acortamiento y estiramiento**

Introducción teórica  
Reconstrucción por longitud de líneas  
Utilización de *pin lines* y *loose lines*  
Reconstrucción por áreas  
Métodos combinados  
Reconstrucción por partes  
Cálculo de acortamiento y estiramiento  
Utilización de programas de balanceo. Métodos de *parallel shear*, *line length* y *flattening*.  
Ventajas y advertencias del uso de software.

**X. Estructuras de rumbo (*strike-slip*)**

Introducción  
Transtensión y transpresión  
Estructuras en flor (tulipan y palmera)  
Cuencas *pull-apart*  
Trishear 3D y su utilización en deformación de rumbo

**XI. Modelos mecánico**

Introducción  
Modelo de elementos finitos  
Modelo de elementos discretos

**XII. Modelos físicos análogos**

Comparación entre modelos análogos, modelos mecánicos, modelos geométrico-cinemáticos  
Comparación con ejemplos de campo  
Ventajas y desventajas de cada tipo de modelo



E. Castañeda



**BIBLIOGRAFIA DEL CURSO**  
**INTRODUCCIÓN A LAS FAJAS PLEGADAS Y CORRIDAS**

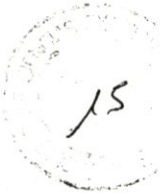
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