Contour location via entropy reduction leveraging multiple information sources (Poster AB#99)

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* Now at DeepMind
• Classification requires many information source (IS) evaluations
• Active learning based on GP surrogate produces better classifiers at lower cost
• In many cases IS0 is expensive, but relatively inexpensive (biased) IS are available
• **How to leverage all IS to produce accurate classifier at lower cost?**
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Multi-information source

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Single information source

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Contributions

- **Contour entropy**: measure of uncertainty about the location of the zero contour of function approximated by statistical surrogate model
- **Decision mechanism**: maximizes average reduction of contour entropy via one-step lookahead approach
- **CLoVER (Contour Location Via Entropy Reduction)**: algorithm that combines data from multiple information sources to locate contours of expensive functions at low cost
Poster AB #99

- **CLoVER**: Contour location via entropy reduction leveraging multiple information sources
- Thursday Dec 6th, Poster Session B, 5-7pm
- Room 210 & 230