

Information for Risk Management in the Large

- 1. Our community**
- 2. Our analytical approach**
- 3. The dynamics of systemic risk**
- 4. New metrics of aggregate behavior**
- 5. Crisis management**

Our Community

- **Open source**
- **Techniques: Wikis, sandboxes**
- **Fellowships, ST hires, university labs**
- **Confidentiality: security, trust, etc.**
- **Multidisciplinary**
- **Making analysis industrial strength**
- **Collaborative**
- **Replication**
- **Data, model and analysis audit trails**

Analytical Approach

- **Highly granular**
 - **CAS**
 - **ABM**
 - **Network analysis**
- **Macroeconomic**
 - **CoVar**
 - **Exposure analysis**
 - **Dynamics of the credit cycle**

The Dynamics of Systemic Risks

- **Network and population changes**
- **Imbalances and bubbles**
- **Leverage and maturity mismatches**
- **Positive feedbacks**
- **Growth and emergent concentrations**

New Metrics of Aggregate Behavior

- **Indices - mortgages, leverage, liquidity**
- **Measures of imbalances (eg: when house prices move out of line with income or rents ...)**
- **Measures of heterogeneity**

Crisis Management

- **Exposure maps**
- **Forensics of market abnormalities**
- **Reactions functions**