The self-guided 4-part course will introduce the relevance of dynamical systems theory for understanding, investigating, and resolving protracted social conflict at different levels of social reality (interpersonal, inter-group, international). It views conflicts as dynamic processes whose evolution reflects a complex interplay of factors operating at different levels and timescales. The goal for the course is to help develop a basic understanding of the dynamics underlying the development and transformation of intractable conflict.

DST Course Objectives

Participants in this class will:

- Learn the basic ideas and methods associated with dynamical systems.
- Learn the relevance of dynamical systems for personal and interpersonal processes.
- Learn the implications of dynamical models for understanding and investigating conflict of different types and at different levels of social reality.
- Learn to think about conflict in a manner that allows for new and testable means of conflict resolution.


### Short Introductory Blog Posts

- [http://www.psychologytoday.com/blog/the-five-percent/201109/navigating-the-impossible-5-percent-work](http://www.psychologytoday.com/blog/the-five-percent/201109/navigating-the-impossible-5-percent-work)
- [http://www.mediate.com/articles/ColemanP1.cfm](http://www.mediate.com/articles/ColemanP1.cfm)
- [http://www.huffingtonpost.com/peter-t-coleman-phd/washington-is-fixed-and-n_b_811307.html](http://www.huffingtonpost.com/peter-t-coleman-phd/washington-is-fixed-and-n_b_811307.html)
- [http://www.huffingtonpost.com/peter-t-coleman-phd/america-needs-political-s_i_b_1790327.html](http://www.huffingtonpost.com/peter-t-coleman-phd/america-needs-political-s_i_b_1790327.html)

### Short Introductory Videos

- [http://www.youtube.com/ICCCRTC](http://www.youtube.com/ICCCRTC)
- DST session overview: [http://www.youtube.com/watch?v=c7PrLXSIt3o](http://www.youtube.com/watch?v=c7PrLXSIt3o)
- [http://www.youtube.com/watch?v=zdrdhU8WrfA&feature=plcp](http://www.youtube.com/watch?v=zdrdhU8WrfA&feature=plcp)
Part I: Introduction to Dynamical Systems Theory

The class will begin by introducing the **basic assumptions, concepts, principles and theories** of the dynamical systems approach. The potential benefits of the dynamical approach will be developed by contrasting dynamical assumptions with the assumptions underlying traditional perspectives on social relations.

Readings:


Theoretical background:

Constructs:
- Complex Systems
- Multi Levels
- Dynamical Systems (Time and Space)
- Non-linearity
- Unintended consequences
- Emergence
- Networks
- Feedback loops
- Extrinsic and intrinsic dynamics
- Fixed-point attractors (visible and latent)
- Self-organization and the collapse of complexity
- Catastrophe theory and bifurcations

Part II: The Dynamical Model of Intractable Conflict

The second part will be devoted to the presentation and discussion of concepts and tools that are crucial for a dynamical model of conflict. We will introduce the basic features of dynamical systems that have been identified in the natural sciences, show their relevance to personal and interpersonal processes, and discuss their implications for understanding the dynamics of conflicts.

Conceptual models and constructs:

- **Attractor Landscape Model (ALM):**

- **Network Models**

- **Punctuated Equilibrium Model**

- **SAT Model**

Additional Readings:


Part III: The Evidence
The third part will present empirical research supporting the dynamical approach to conflict.

- **Case studies:** Mozambique, Burma, Nepal, South Sudan, Nigeria, Detroit Symphony, Brookline abortion, Columbia University, Family Divorce:


- **Lab research:** Difficult conversations lab, optimality research, Action Identification research, Culture and complexity, non-linear escalation studies:

  Kugler, K., Coleman, P. T., and Fuchs, A. M. (working paper). Conflict, complexity and openness: Constructive versus destructive dynamics of discussions over intractable issues.
  Coleman, P. T., Tan, R. Y., Bui-Wrzosinska, L., & Nowak, A. (working paper). Are they with us or against us? The effects of need for closure on conflict orientations and catastrophic escalatory dynamics.
Mathematical modeling and computer simulations: Cooperation-competition, Crude Law Model, Complexity model:


Archival research: Correlates of War dataset.

Part IV: Applications - Addressing Realities on the Ground

The fourth part of the course outlines applications of the DST approach to addressing seemingly impossible conflicts.

- **ALM Three Practices**
  - Complicate to Simplify (*conflict analysis and feedback loop mapping*)
  - Build up and Tear down (*strategic action: disassembly and reconfiguration of an existing attractor; activation or creation of a latent attractor; change in the number and types of attractors*)
  - Change to Stabilize (*adaptation and sustainability*)
  - Attractor Software Model

Getting Un-Attracted to Conflict: Three Practices

- Complicate Things: Escaping Attractors
- Simplify Things: Focusing on Hubs & Actionables
- Build Up: Growing Hidden Possibilities
- Tear Down: Dismantling Destructive Traps
- Leverage Change: Working the Levers
- Decide More: Adapting to Change

The Attractor Software Tool

- Offers simple visualization of how elements link to affect patterns of constructive/destructive behaviors.
- It helps to untangle the web: simplifies understanding of a system w/o oversimplifying the problem.
- It suggests a sequence of activities that can lead to a reconfiguration of the system.
- It shows that the same action can have multiple consequences and distinguishes short- and long-term (+ & -) consequences.
- And points to sustainable solutions.

Go to: http://www.iccc.edu.pl/as/

- **SAT Model**
  - Structure, Attitudes, Transactions


- **Systemic Action Research**
  - Principles, Practices