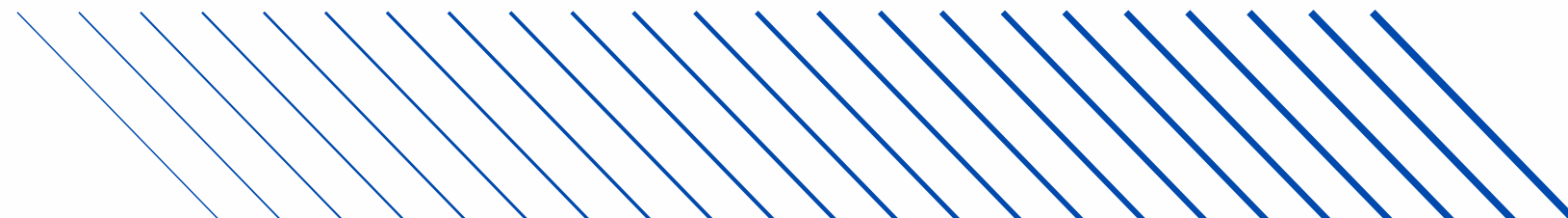
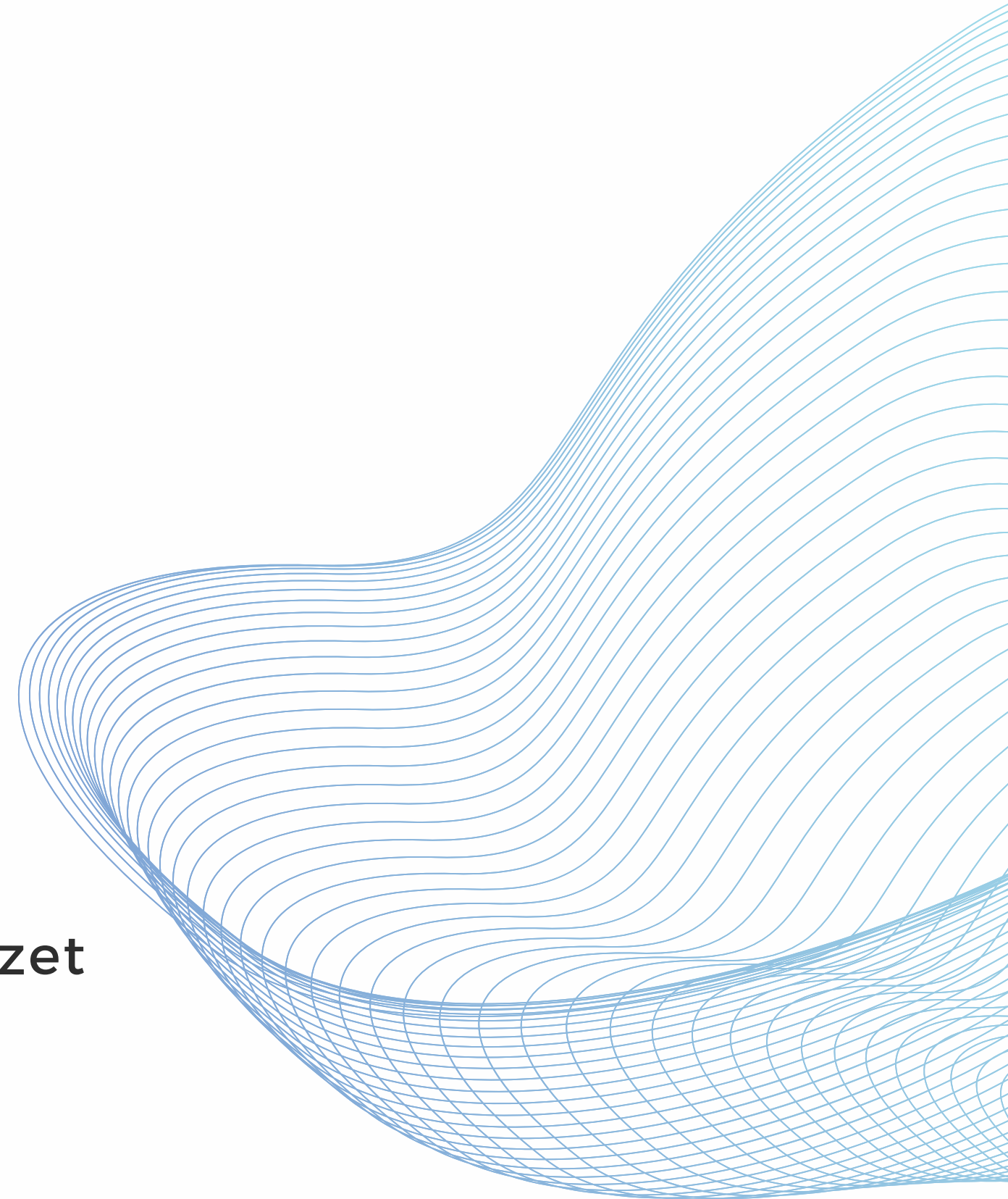




Hinda Institute

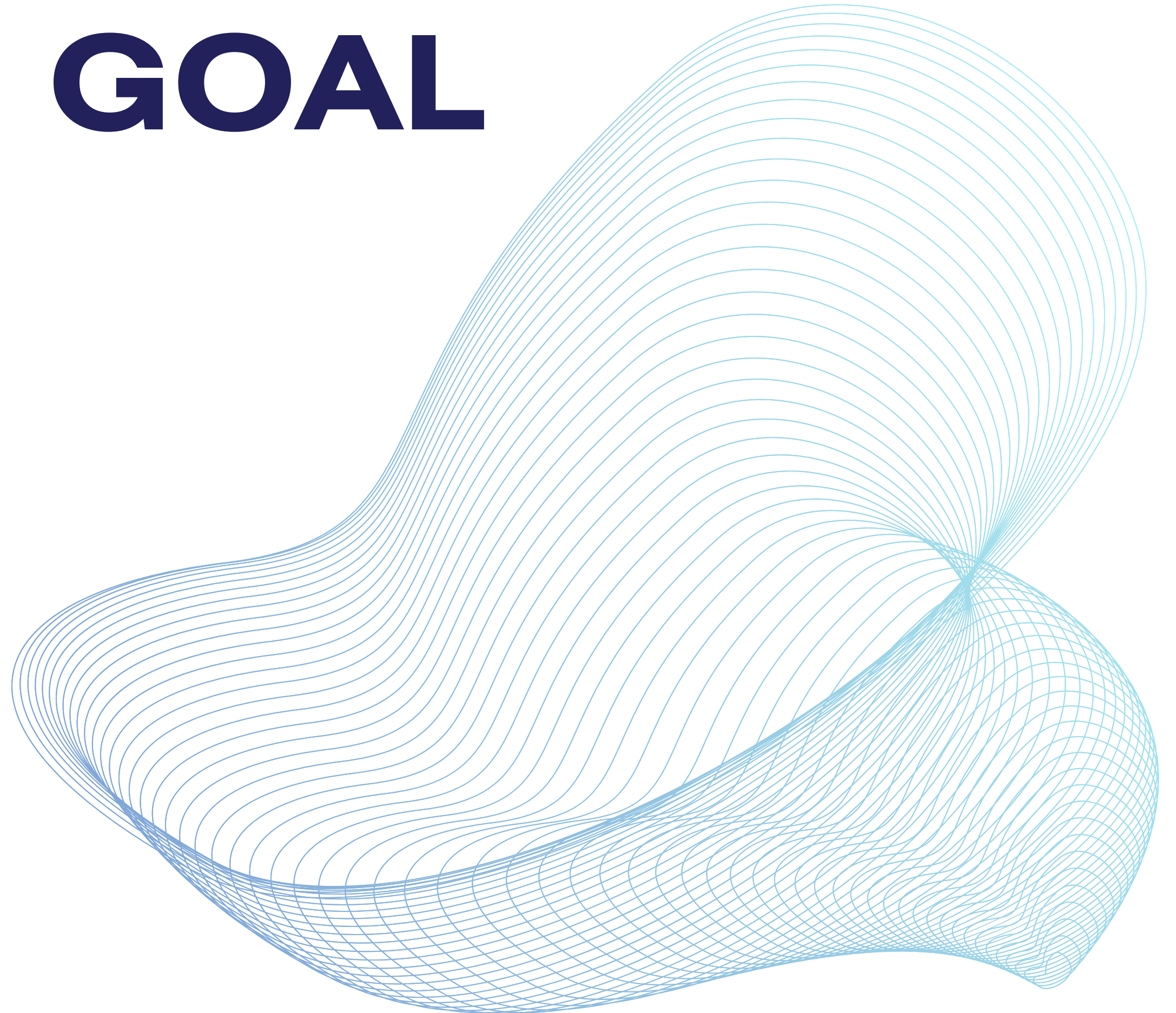
PROBLEM SOLVING: STRATEGIES TO THRIVE

Co-Facilitators: Dr. Stephanie Kutzen and Mrs. Beth Palzet
12/20/23



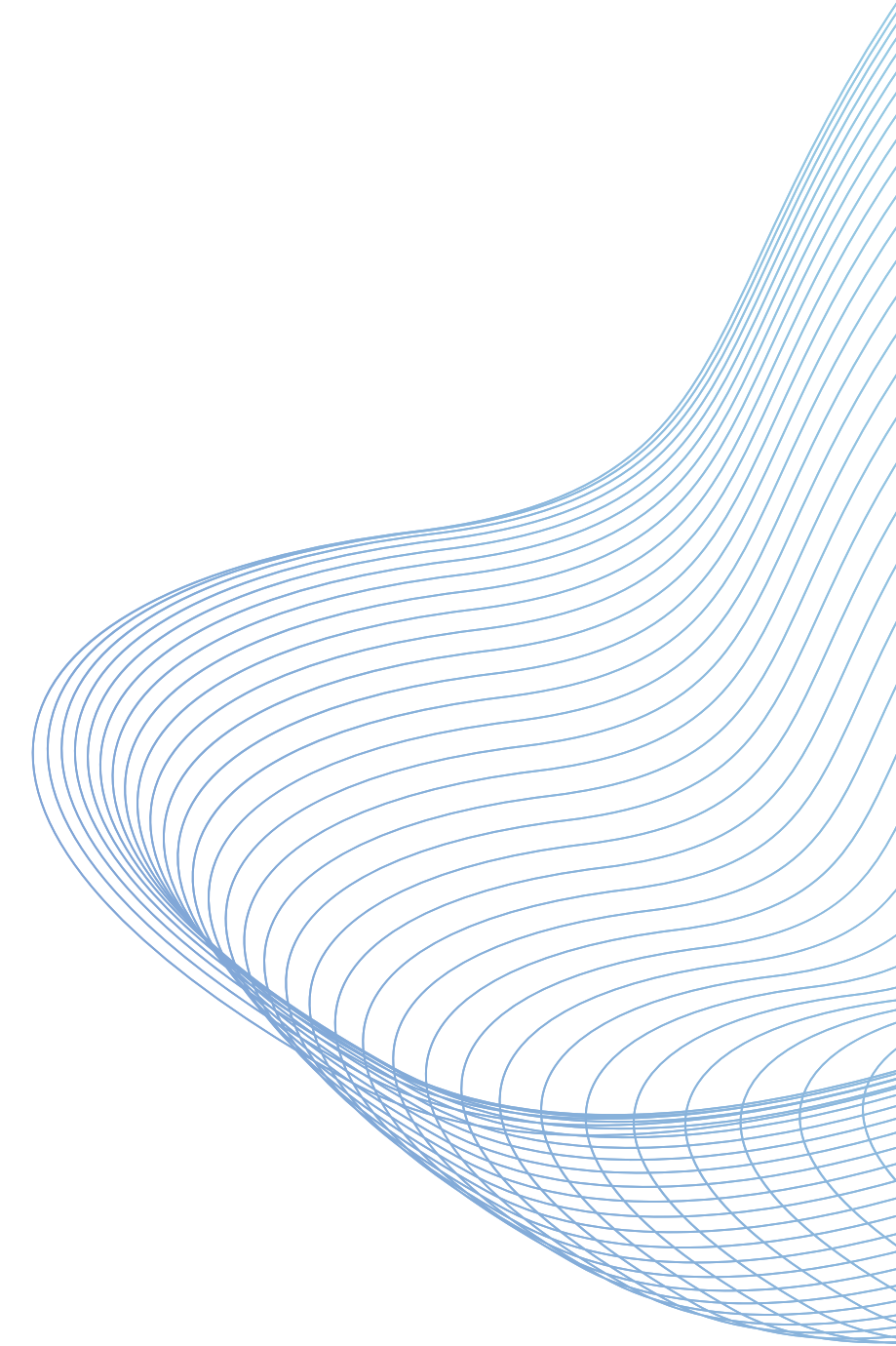
SEMINAR GOAL

Our ultimate goal is to overcome obstacles by uncovering root causes of problems and to identify, analyze, and move to problems' solutions.



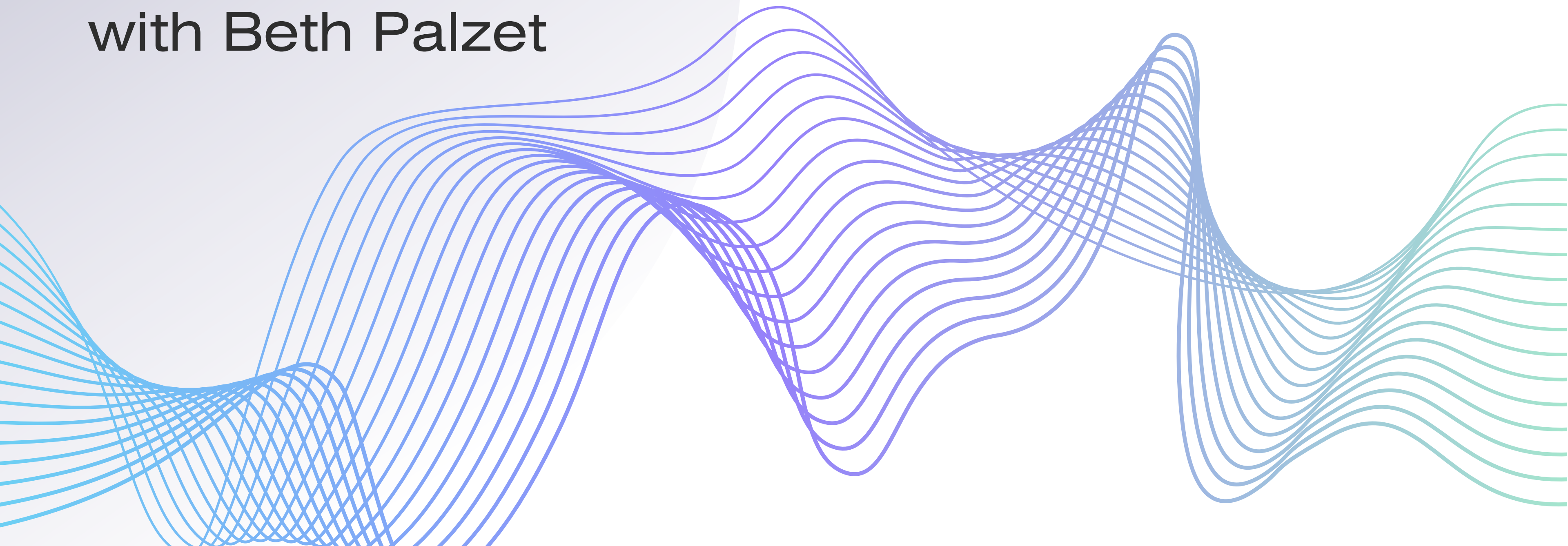
COURSE OBJECTIVES

- Provide a working definition of problem solving easily applied to daily life.
- Examine fundamental roles of the Central Nervous System (CNS), biological and psychological systems in problem solving.
- Analyze the advantages of joining “thinking and feeling” for better problem solving skills and well-being.
- Formulate, or implement, a plan to bridge the gap between desired state and current state.



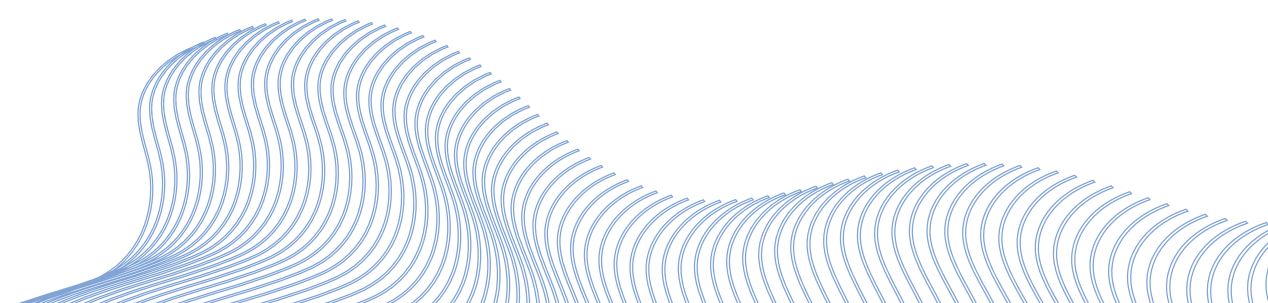
PRE-TEST ANALYSIS

with Beth Palzet





PROBLEM SOLVING: INTERPLAY OF THESE COGNITIVE FUNCTIONS

- **Thinking**- analyze information, identify patterns, and connect with existing knowledge.
 - **Planning**- develop series of steps to achieve desired outcome.
 - **Decision-making**- choose the best course among available options.
 - **Memory**- recalling relevant information and past experiences to inform current decisions.
 - **Learning**- adapting, refining through evaluation, feedback and new information
- 

THE ROLE OF THE CENTRAL NERVOUS SYSTEM IN PROBLEM SOLVING

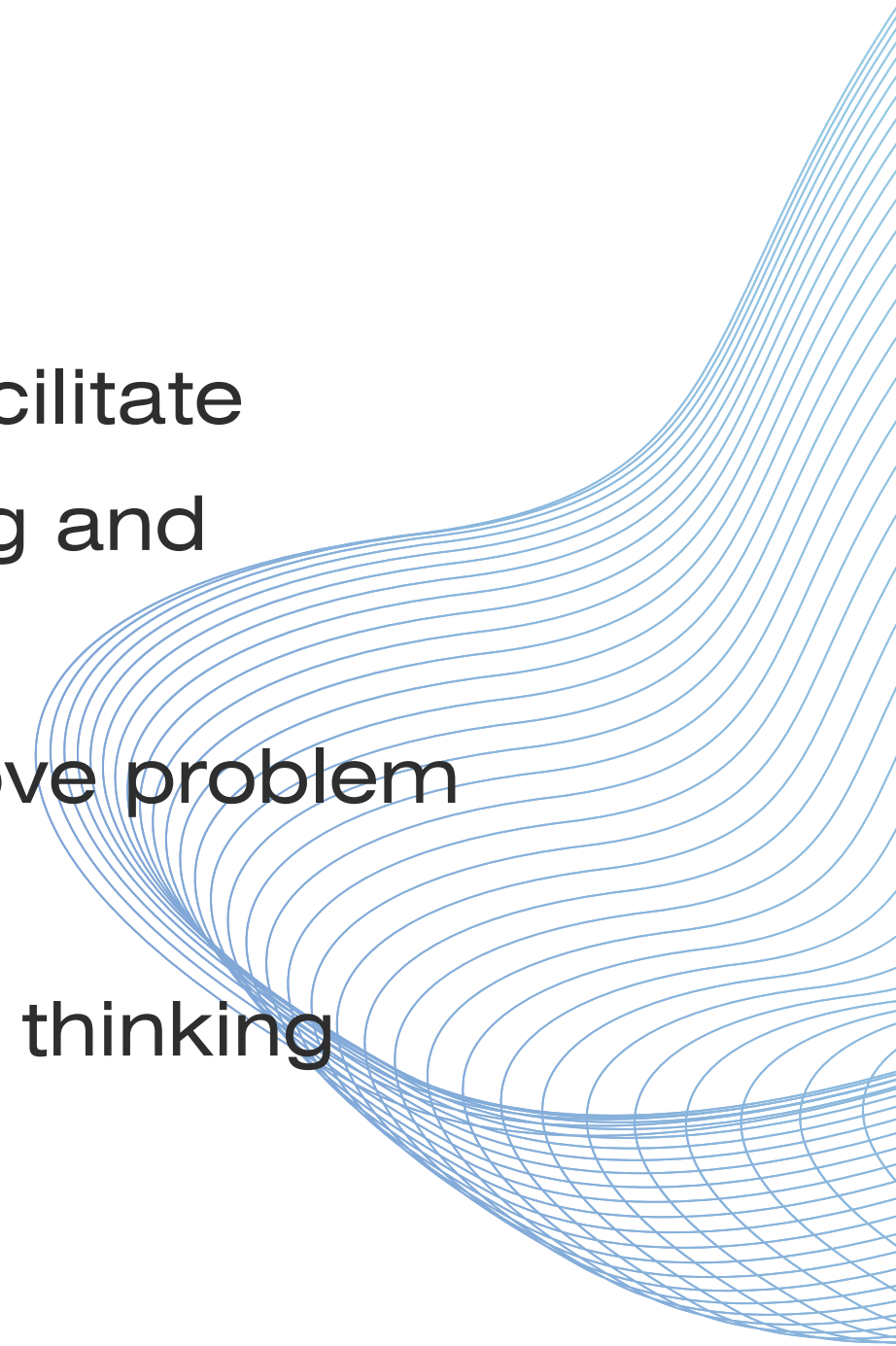
- CNS includes brain and spinal cord acting as command center for all actions, including problem solving.
- CNS is a neuron network transmitting electrical and chemical signals.
- Signals enable communication for information processing.

KEY CNS AREAS INVOLVED IN PROBLEM SOLVING

- **Pre-Frontal Cortex**- planning, decision making and working memory.
- **Anterior-Cortex**- evaluates potential solutions and monitors progress.
- **Basal Ganglia**- controls movement and habit formation.
- **Hippocampus**- stores memory and facilitates learning.
- **Amygdala**- processes emotion influencing decision-making.



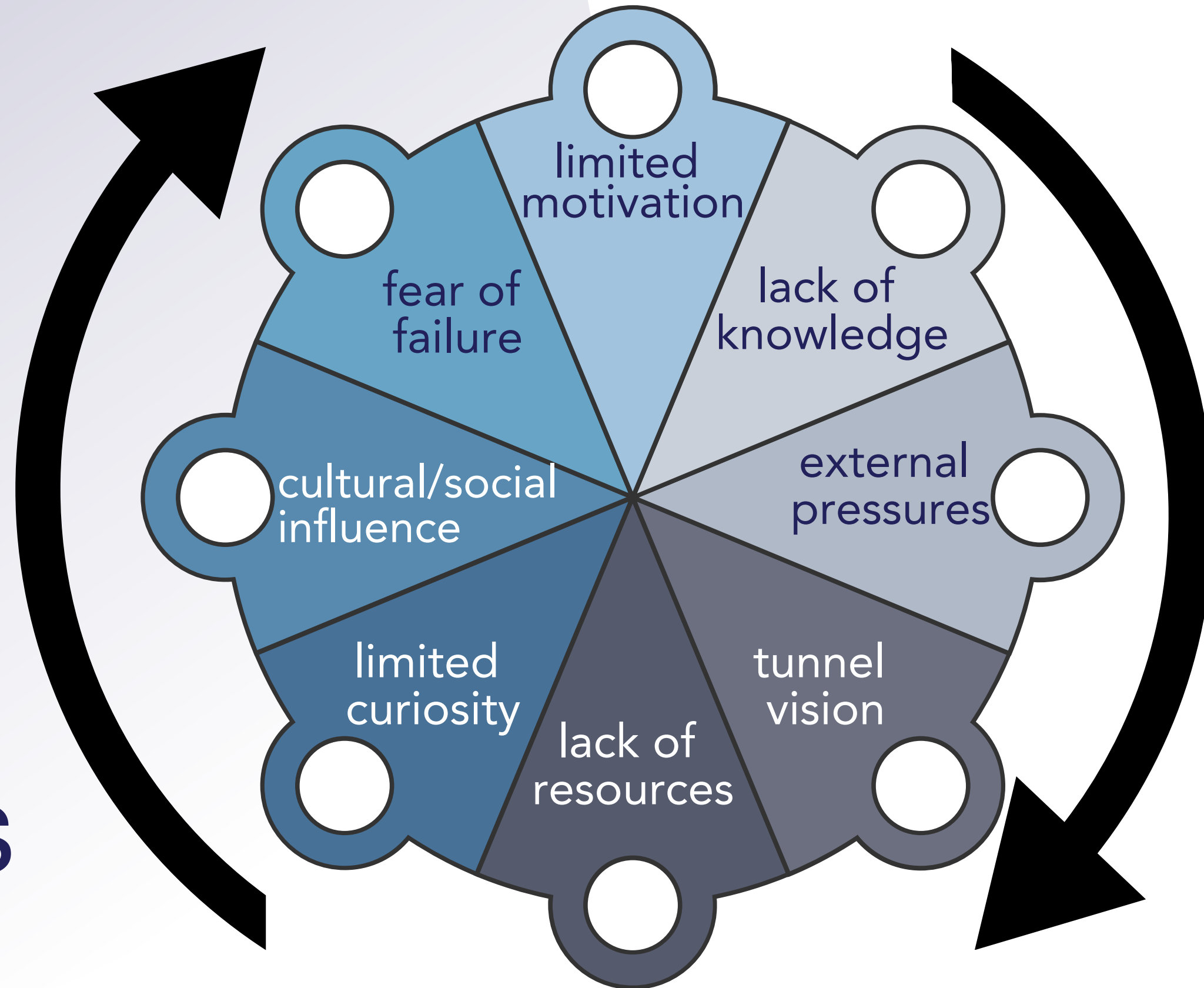
BIOLOGICAL MECHANISMS OF PROBLEM SOLVING

- **Neurotransmitters**- chemical messengers (ie dopamine), facilitate communication between neurons impacting attention, learning and motivation.
 - **Brain Plasticity**- brain's ability to "RE-WIRE ITSELF" to improve problem solving.
 - **Myelin**- fatty substance that insulates nerve fibers to improve thinking efficiency.
- 

PSYCHOLOGICAL MECHANISMS OF PROBLEM SOLVING

- **Distress**- impairs cognitive function.
- **Stress/Anxiety**- hormones (cortisol) released inhibits decision-making.
- **Chronic Distress**- leads to structural brain changes.
- **Motivational Drive**- slowed/distorted in reaching goal (potential for mental health problems).

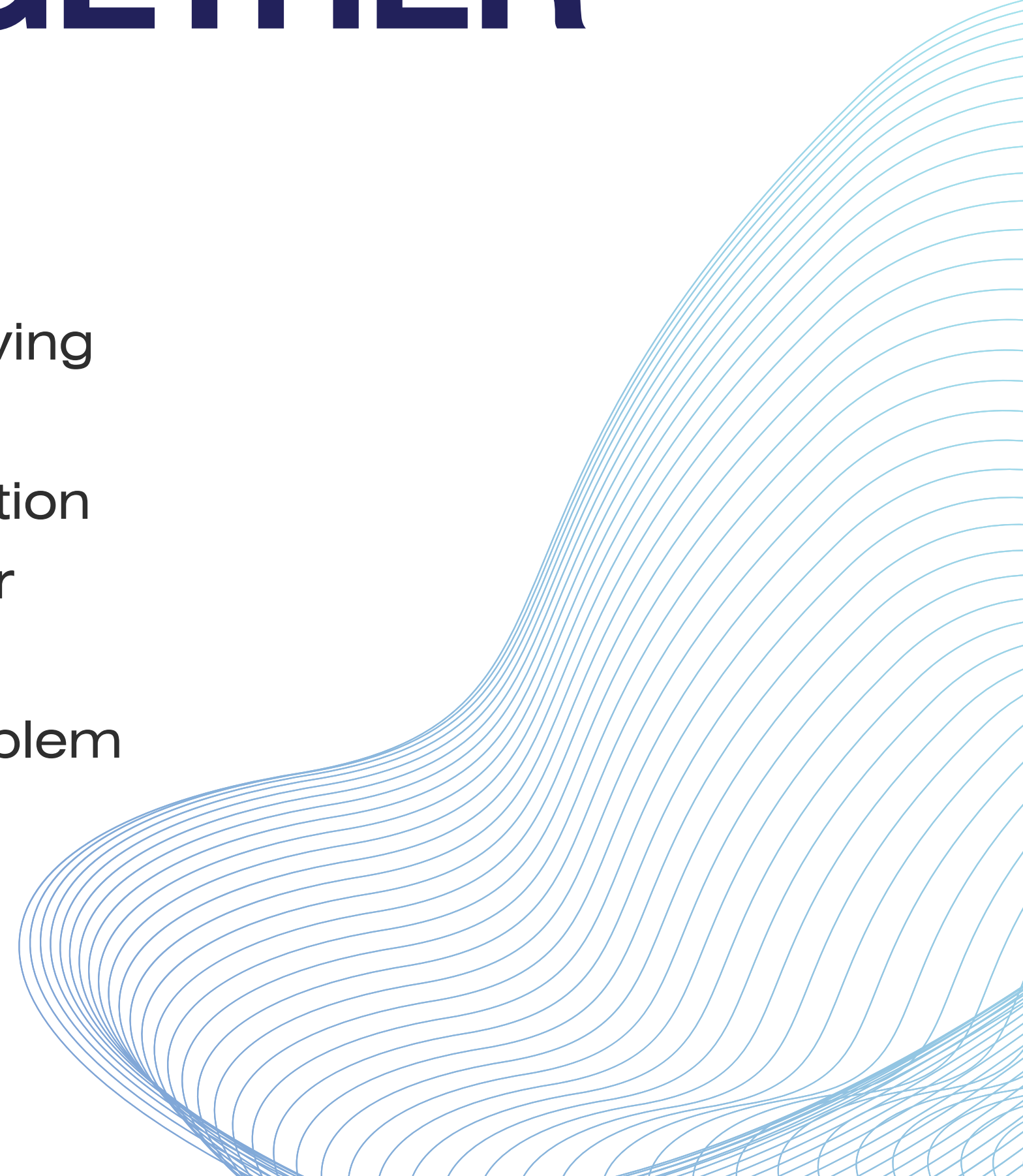
JOINT COGNITIVE & EMOTIONAL BARRIERS TO PROBLEM-SOLVING



CAUSES

LET'S PUT IT TOGETHER

- **Identify and note** your personal problem-solving barriers.
- **Identify** your mental state. I see only one solution that has worked in the past OR I brainstorm for more than one solution.
- **Do I have** psychological bias tendency to problem solve in an unknowingly or irrational way?



A SNEAK PEEK AT SESSION 2

- Impact of Addictions on Problem Solving
- How Mental Health Disorders Affect Problem Solving

Co-Facilitators: Dr. Stephanie Kutzen and Mrs. Beth Palzet
12/27/23

