September 26, 2025

From Unstructured Text to Knowledge Graphs: Towards More Reliable RAG Systems

Khadija ABATTANE

Supervisors : Julien TOURILLE, Sabrina CAMPANO, Eve SAUVAGE

Motivation & Research Problem

- LLMs powerful but prone to hallucinations 🤔

- **Knowledge Graphs**: Knowledge graphs have become essential tools for representing world knowledge through interconnected entities and relationships, enabling efficient navigation and pattern discovery
  → transparent, queryable, explainable

➤ **Challenge**: automated extraction from dense regulatory texts

➤ **Research objective**: minimize information loss in the text-to-Knowledge Graphs pipeline

Methodology : LLM-Powered Pipeline: From Text to RDF Triples