

# On the Decomposition of Belief Functions into Simple Support Functions

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- Who am I ?
    - ▶ Associate Professor at Artois University.
    - ▶ Member of the LGI2A laboratory (Béthune, ~45min west of Lille): theory and applications of belief functions.
    - ▶ Treasurer of the Belief Functions and Applications Society: next school in the beautiful city of Siena, Italy, end of October!
  - What is the poster about ?
    - ▶ G. Shafer (1976) proposed to **interpret belief functions (BF) as stemming from** simple support functions (SSF), each representing a **partially reliable and elementary testimony**.
    - ▶ Ph. Smets (1995) proposed an alternative decomposition of BF into SSF, arguing that Shafer's was not entirely satisfactory.
    - ▶ Smets's proposal raises its own issues.
- Both Shafer's fundamental idea of decomposing BF into SSF and Smets's decomposition are revisited: **a new decomposition and a different perspective on Smets's** are obtained.