The first international workshop on the Twin Peaks of Requirements and Architecture (TwinPeaks 2012) focuses on the strong interdependencies and synergistic relationships that exist between requirements and architectural design. The Twin Peaks model\(^1\) emphasizes the need to progressively discover and specify requirements, while concurrently exploring alternative architectural decisions. This is particularly important in the current IT environment, in which fast-paced, agile projects have become the norm.

Researchers from both the requirements and architecture communities have addressed related challenges, delivering a vast array of solutions including the Attribute Driven Design Method (ADD), the WinWin approach, Architectural Trade-off Analysis Method (ATAM), the NFR catalog and its accompanying SoftGoal Interdependency Graphs, design rationale management systems, incremental approaches for architectural design, and techniques for introducing requirements to existing architectural solutions.

Despite these advances, the challenge of understanding and managing the intricate relationship between requirements and software architectures has not yet been fully addressed. For example, a recent report\(^2\) commissioned by the U.S. Department of Defense noted that solutions such as spiral development models, joint application development, and agile processes, were typically not adopted in DoD projects. Given the complex and evolving requirements of such projects, the report stressed the importance of advancing research and practice in this area so that requirements could be treated as an evolving set of constraints and the high-level architectural design developed incrementally and iteratively in response to these requirements.

This workshop is designed to provide a venue for researchers, practitioners and educators from the areas of requirements engineering and software architecture to discuss their experiences, forge new collaborations, and explore innovative solutions that leverage the full potential of the Twin Peaks model.

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