



## Crowd Simulation by Funda Durupinar Babur

Have you ever wondered how the large battle scenes in the Lord of the Rings were filmed? Choreographing and directing thousands of extras populating the battlefield, each with a unique costume and makeup would have been excruciating if it weren't for crowd simulation. Similarly, take the non-playing characters in Assassin's Creed, populating the virtual world and making the gaming experience more realistic. Applications of crowd simulation are not limited to entertainment– it is used in a wide range of areas including emergency evacuation simulations, urban and architectural planning and military applications. Since its inception, crowd simulation has attracted the interest of the computer graphics community as well as social sciences and AI researchers. In this talk, we are going to learn about what crowd simulation encompasses, its evolution and how heterogeneous, believable virtual crowds can be created by synthesizing knowledge from different fields such as psychology and sociology.