

ED STIC - Proposition de Sujets de Thèse  
pour la campagne d'Allocation de thèses 2011

**Titre du sujet :**

**Mention de thèse :**

**HDR Directeur de thèse inscrit à l'ED STIC :**

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**Co-encadrant de thèse éventuel :**

**Nom :**

**Prénom :**

**Email :**

**Téléphone :**

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**Email de contact pour ce sujet :**

**Laboratoire d'accueil :**

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**Description du sujet :**

In this PhD, the student will investigate the perception of realism for globally illuminated images.

Different combinations of conditions and factors affect the relative weight of each of material, texture, shape, and lighting in the decision of whether an image is perceived as realistic or not. The consequences on rendering algorithms are obvious: based on the study, scenes will be analyzed and resources will be allocated appropriately to optimize the trade-off between speed/memory and perceived realism.

A unique and novel feature of this work will be the specific attention to the use of perception-guided rendering approaches in the immersive space (4-wall BARCO iSpace and CAVE at INRIA Sophia-Antipolis). We expect the specificities of large, stereoscopic viewing to pose specific problems and require dedicated studies with exciting new results.

**URL :**

**English version:**

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**URL :** <http://www-sop.inria.fr/reves/Stages/2011/PhD-Realism.pdf>