

Processus de sélection - AAP générique 2019 étape 1

COM-SENSUAL-DARMA

Coordinateur du projet

Nom : **Muanza**

Prénom : **Steve**

Courriel : **Muanza@in2p3.fr**

EVALUATIONS INDIVIDUELLES DU PROJET

QUALITE ET AMBITION SCIENTIFIQUE - critère discriminant

- CLARTÉ DES OBJECTIFS ET DES HYPOTHÈSES DE RECHERCHE
- CARACTÈRE NOVATEUR, ORIGINALITÉ, POSITIONNEMENT PAR RAPPORT À L'ÉTAT DE L'ART
- PERTINENCE DE LA MÉTHODOLOGIE
- CAPACITÉ DU PROJET À RÉPONDRE AUX ENJEUX DE RECHERCHE DE L'AXE SCIENTIFIQUE CHOISI

The research objectives and hypotheses upon which the Com-SENSUAL-DARMA proposal is based -- the importance of searching for Dark Matter (DM) both directly and indirectly through production at the LHC -- are described very clearly. The current state of the art is that higher-luminosity LHC runs and better, and bigger, direct search experiments such as at the XENON project are set to improve these searches significantly, although other leading efforts in the area are not discussed in detail. Relative to this, the proposal demonstrates some novelty and originality in that the MAOS method is adapted and improved for use on ATLAS data, some improvements will be made to the "Suspect" SUSY spectrum calculator, studies to assist the understanding of Xenon-nT data will be performed as well as DM studies for the MIMAC and KM3NeT experiments. The methods described for each of these different strands would seem to be appropriate in making progress towards meeting the objectives of the project. Overall, the project is spread across a large number of mostly-independent areas and may be able to address some of the needs of the chosen research theme.

ORGANISATION ET REALISATION DU PROJET

- COMPÉTENCE, EXPERTISE ET IMPLICATION DU COORDINATEUR SCIENTIFIQUE ET DES PARTENAIRES
- QUALITÉ ET COMPLÉMENTARITÉ DU CONSORTIUM, QUALITÉ DE LA COLLABORATION

The track record and past experience of the scientific coordinator for Com-SENSUAL-DARMA demonstrates their ability to lead this project very clearly with relevant experience from the L3 and DZero experiments and leadership at ATLAS. Their level of involvement appears not to be indicated in significant detail. The partners are from seven different institutions, and the six senior members who are described in detail clearly all bring a significant amount of experience to the project.

QUALITE ET AMBITION SCIENTIFIQUE - critère discriminant

- CLARTÉ DES OBJECTIFS ET DES HYPOTHÈSES DE RECHERCHE
- CARACTÈRE NOVATEUR, ORIGINALITÉ, POSITIONNEMENT PAR RAPPORT À L'ÉTAT DE L'ART
- PERTINENCE DE LA MÉTHODOLOGIE
- CAPACITÉ DU PROJET À RÉPONDRE AUX ENJEUX DE RECHERCHE DE L'AXE SCIENTIFIQUE CHOISI

This is a good project that aims at ripping information from the next LHC run and the new generation of dark matter experiments such as Xenon-nT to further constrain the already constrained and much contrived (natural) supersymmetric extensions of the Standard Model. The overall project is narrow-minded in scope since it is aimed to specific extensions of the Standard Model.

ORGANISATION ET REALISATION DU PROJET

- COMPÉTENCE, EXPERTISE ET IMPLICATION DU COORDINATEUR SCIENTIFIQUE ET DES PARTENAIRES
- QUALITÉ ET COMPLÉMENTARITÉ DU CONSORTIUM, QUALITÉ DE LA COLLABORATION

The PI has a good track record and the team is well balanced featuring both theorists and experimental colleagues.