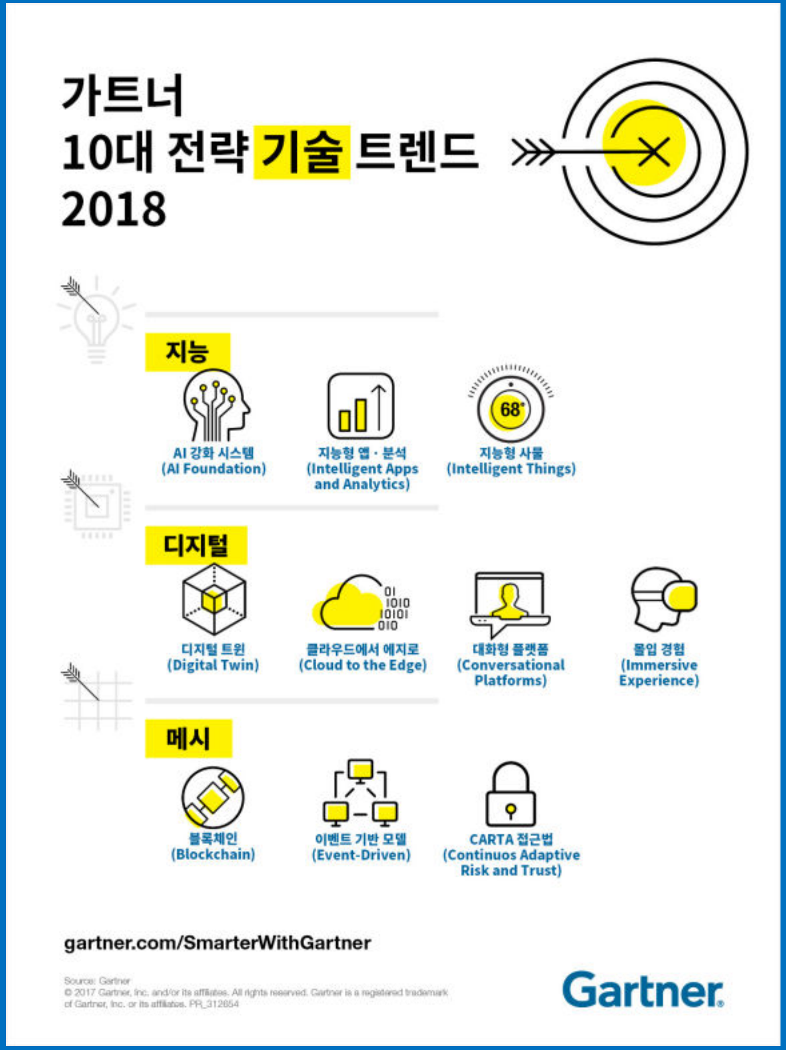

Capstone Design 1조
엄형근(팀장), 변구훈, 차민준, 구민준
캡톤 아메리카
With 임성수교수님
Open Journal


가트너
10대 전략 기술 트렌드
2018
지능
AI 강화 시스템
(AI Foundation)
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(Intelligent Apps and Analytics)
68°
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(Intelligent Things)
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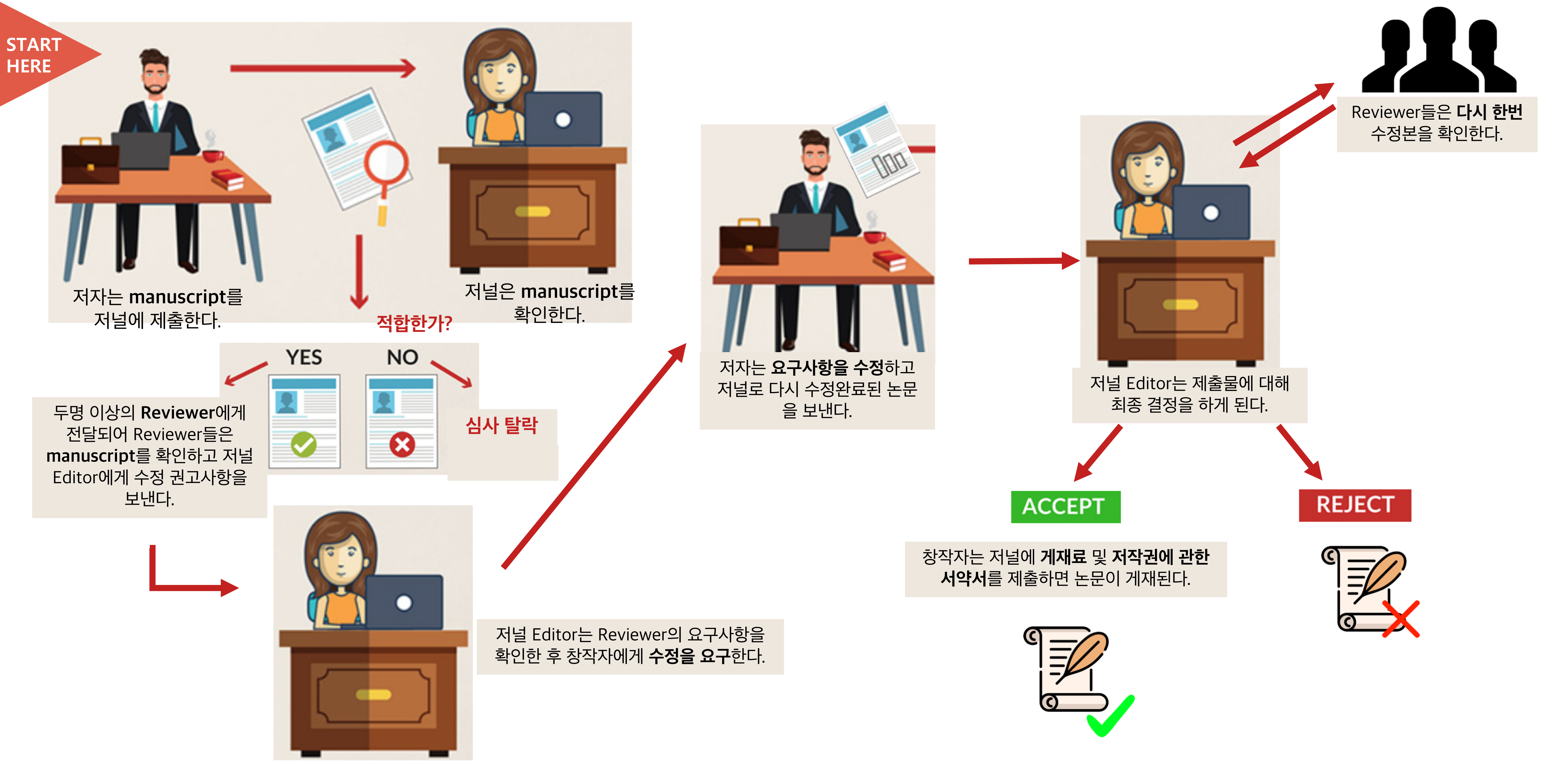
분산형 상호신뢰 시스템

논문 투고 절차



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NO
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Journal
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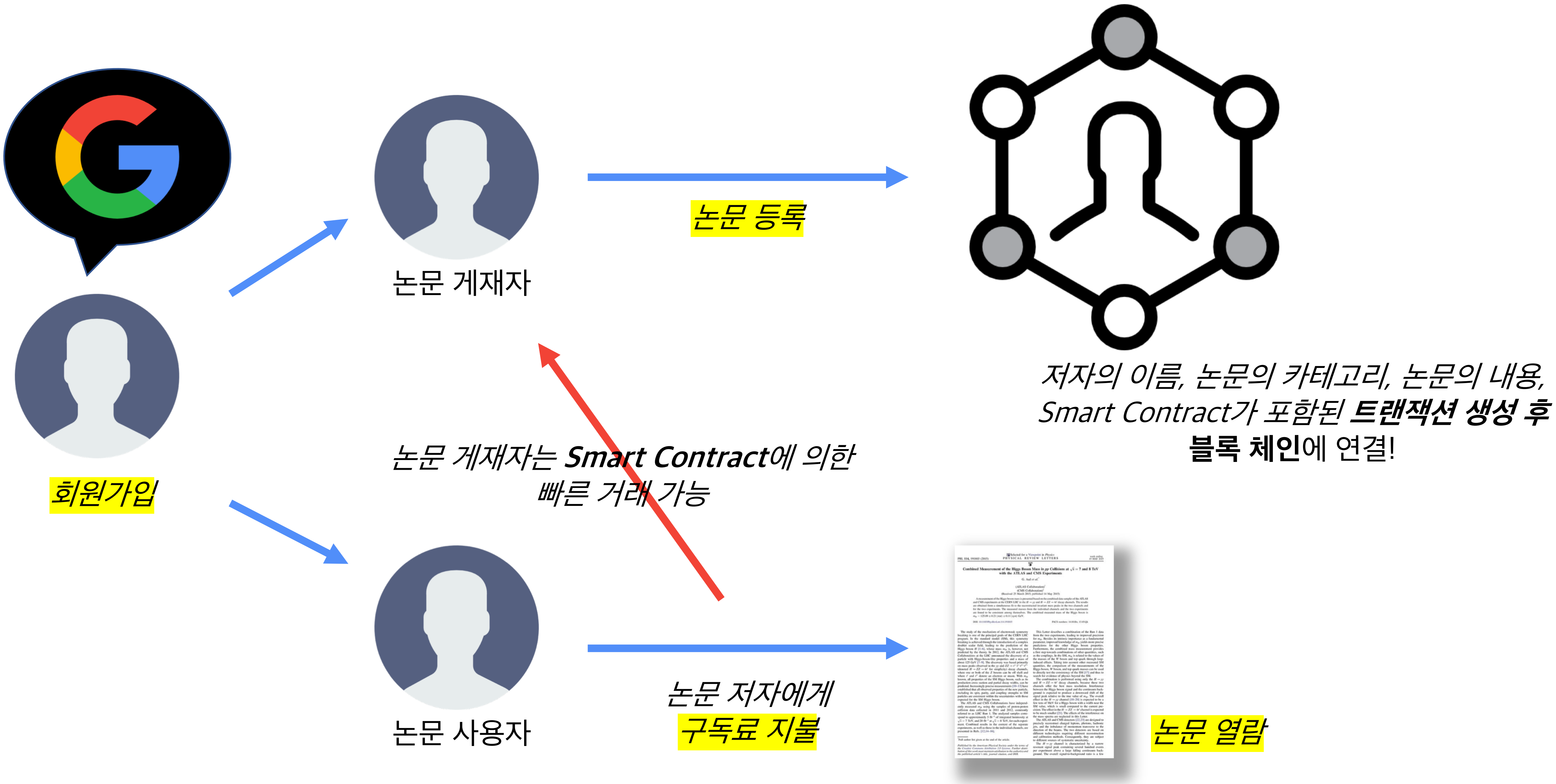
OPEN JOURNAL


고마워요! 캡톤 아메리카♥

Open Journal 플랫폼 시나리오



Open Journal 커뮤니티 예상 시나리오

" 프로젝트에 참고 할 만한 논문을 찾아주세요. "

질문자에 의해 **답변이 채택**되면
답변자는 '명성'을 쌓아 올릴 수 있다.

" #13번 논문에 대해서 이런 견해가 있습니다. "

사람들이 글쓴이의 견해에 대해
Voting을 하며 인정을 하게 된다면,
글쓴이는 '명성'을 쌓아 올릴 수 있다.

'명성'을 일정 이상 얻게 된다. = '뱃지'를 부여 받게 된다. = 좀 더 공신력을 가진 사람으로 표현된다.

BLOCKCHAIN


PRL 114, 191803 (2015) Selected for a Viewpoint in *Physics* PHYSICAL REVIEW LETTERS week ending 15 MAY 2015

Combined Measurement of the Higgs Boson Mass in pp Collisions at $\sqrt{s} = 7$ and 8 TeV with the ATLAS and CMS Experiments

G. Aad *et al.*[*]

(ATLAS Collaboration)[†]
(CMS Collaboration)[‡]
(Received 25 March 2015; published 14 May 2015)

A measurement of the Higgs boson mass is presented based on the combined data samples of the ATLAS and CMS experiments at the CERN LHC in the $H \to \gamma\gamma$ and $H \to ZZ \to 4\ell$ decay channels. The results are obtained from a simultaneous fit to the reconstructed invariant mass peaks in the two channels and for the two experiments. The measured masses from the individual channels and the two experiments are found to be consistent among themselves. The combined measured mass of the Higgs boson is $m_H = 125.09 \pm 0.21\,(\text{stat}) \pm 0.11\,(\text{syst})$ GeV.

DOI: 10.1103/PhysRevLett.114.191803 PACS numbers: 14.80.Bn, 13.85.Qk

The study of the mechanism of electroweak symmetry breaking is one of the principal goals of the CERN LHC program. In the standard model (SM), this symmetry breaking is achieved through the introduction of a complex doublet scalar field, leading to the prediction of the Higgs boson H [1–6], whose mass m_H is, however, not predicted by the theory. In 2012, the ATLAS and CMS Collaborations at the LHC announced the discovery of a particle with Higgs-boson-like properties and a mass of about 125 GeV [7–9]. The discovery was based primarily on mass peaks observed in the $\gamma\gamma$ and $ZZ \to \ell^+\ell^-\ell'^+\ell'^-$ (denoted $H \to ZZ \to 4\ell$ for simplicity) decay channels, where one or both of the Z bosons can be off shell and where ℓ and ℓ' denote an electron or muon. With m_H known, all properties of the SM Higgs boson, such as its production cross section and partial decay widths, can be predicted. Increasingly precise measurements [10–13] have established that all observed properties of the new particle, including its spin, parity, and coupling strengths to SM particles are consistent within the uncertainties with those expected for the SM Higgs boson.

The ATLAS and CMS Collaborations have independently measured m_H using the samples of proton-proton collision data collected in 2011 and 2012, commonly referred to as LHC Run 1. The analyzed samples correspond to approximately 5 fb^{-1} of integrated luminosity at $\sqrt{s} = 7$ TeV, and 20 fb^{-1} at $\sqrt{s} = 8$ TeV, for each experiment. Combined results in the context of the separate experiments, as well as those in the individual channels, are presented in Refs. [12,14–16].

This Letter describes a combination of the Run 1 data from the two experiments, leading to improved precision for m_H. Besides its intrinsic importance as a fundamental parameter, improved knowledge of m_H yields more precise predictions for the other Higgs boson properties. Furthermore, the combined mass measurement provides a first step towards combinations of other quantities, such as the couplings. In the SM, m_H is related to the values of the masses of the W boson and top quark through loop-induced effects. Taking into account other measured SM quantities, the comparison of the measurements of the Higgs boson, W boson, and top quark masses can be used to directly test the consistency of the SM [17] and thus to search for evidence of physics beyond the SM.

The combination is performed using only the $H \to \gamma\gamma$ and $H \to ZZ \to 4\ell$ decay channels, because these two channels offer the best mass resolution. Interference between the Higgs boson signal and the continuum background is expected to produce a downward shift of the signal peak relative to the true value of m_H. The overall effect in the $H \to \gamma\gamma$ channel [18–20] is expected to be a few tens of MeV for a Higgs boson with a width near the SM value, which is small compared to the current precision. The effect in the $H \to ZZ \to 4\ell$ channel is expected to be much smaller [21]. The effects of the interference on the mass spectra are neglected in this Letter.

The ATLAS and CMS detectors [22,23] are designed to precisely reconstruct charged leptons, photons, hadronic jets, and the imbalance of momentum transverse to the direction of the beams. The two detectors are based on different technologies requiring different reconstruction and calibration methods. Consequently, they are subject to different sources of systematic uncertainty.

The $H \to \gamma\gamma$ channel is characterized by a narrow resonant signal peak containing several hundred events per experiment above a large falling continuum background. The overall signal-to-background ratio is a few

*Full author list given at the end of the article.

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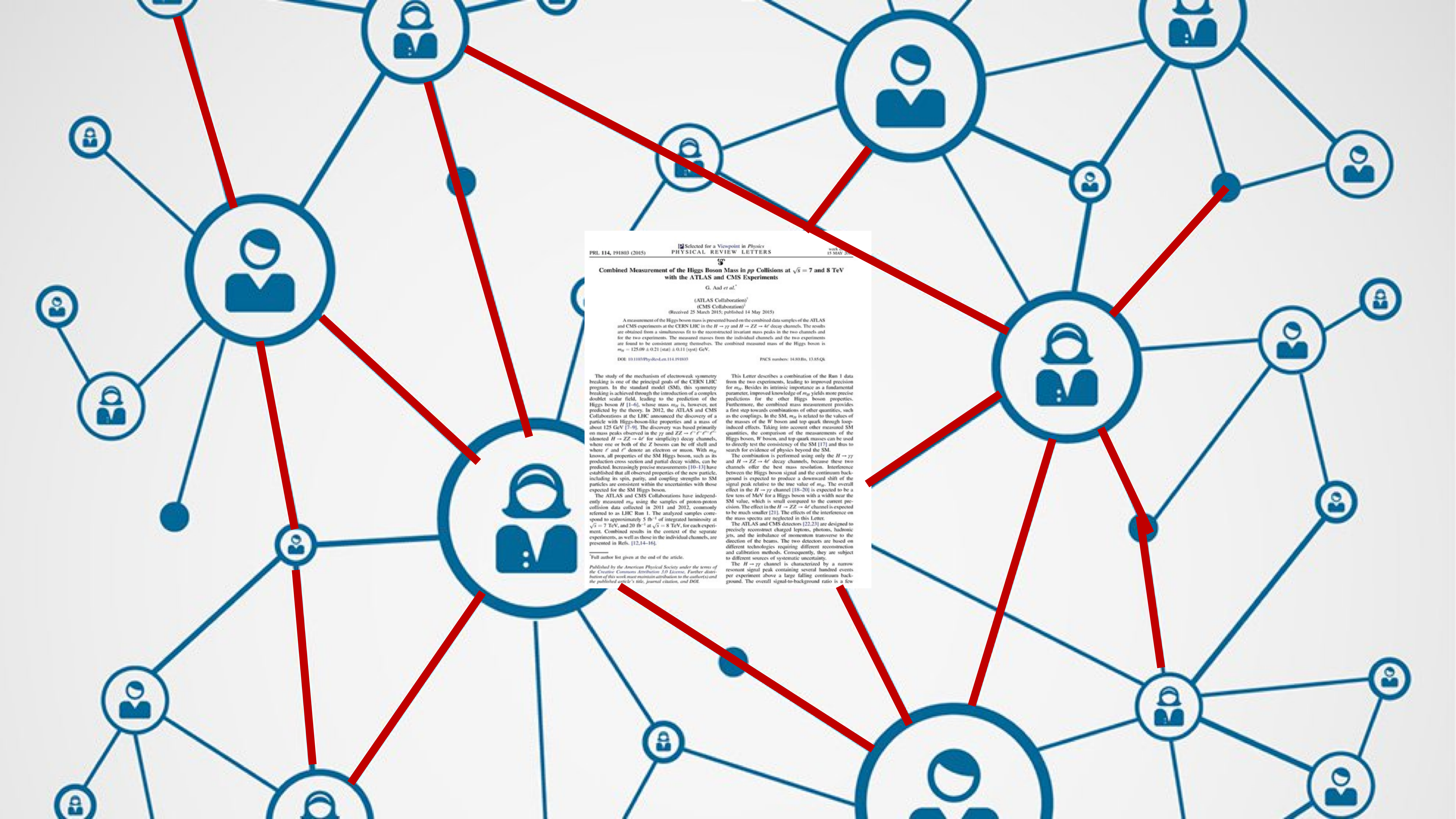
논문

스마트 컨트랙트(계약서)



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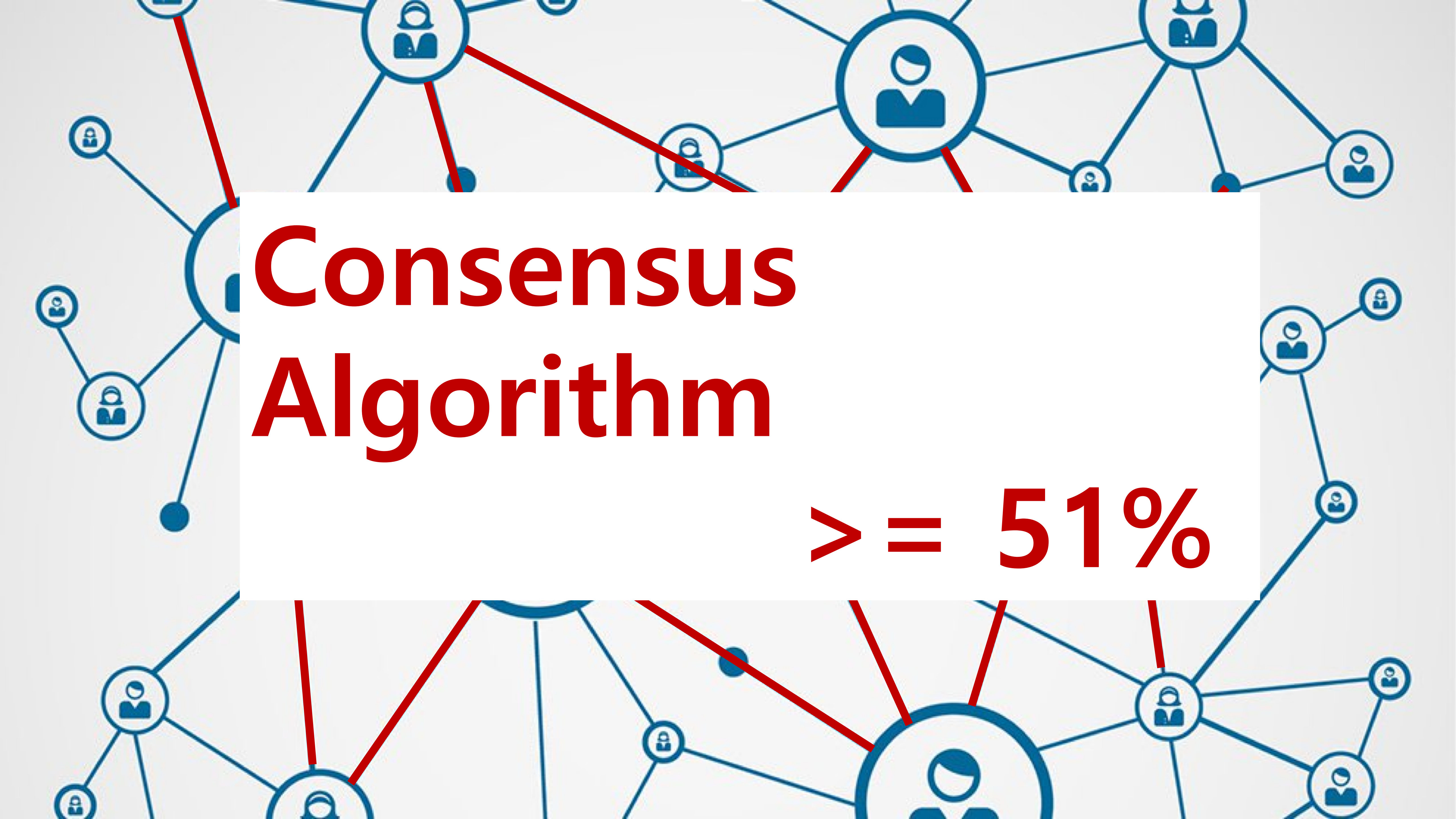
The $H \to \gamma\gamma$ channel is characterized by a narrow resonant signal peak containing several hundred events per experiment above a large falling continuum background. The overall signal-to-background ratio is a few

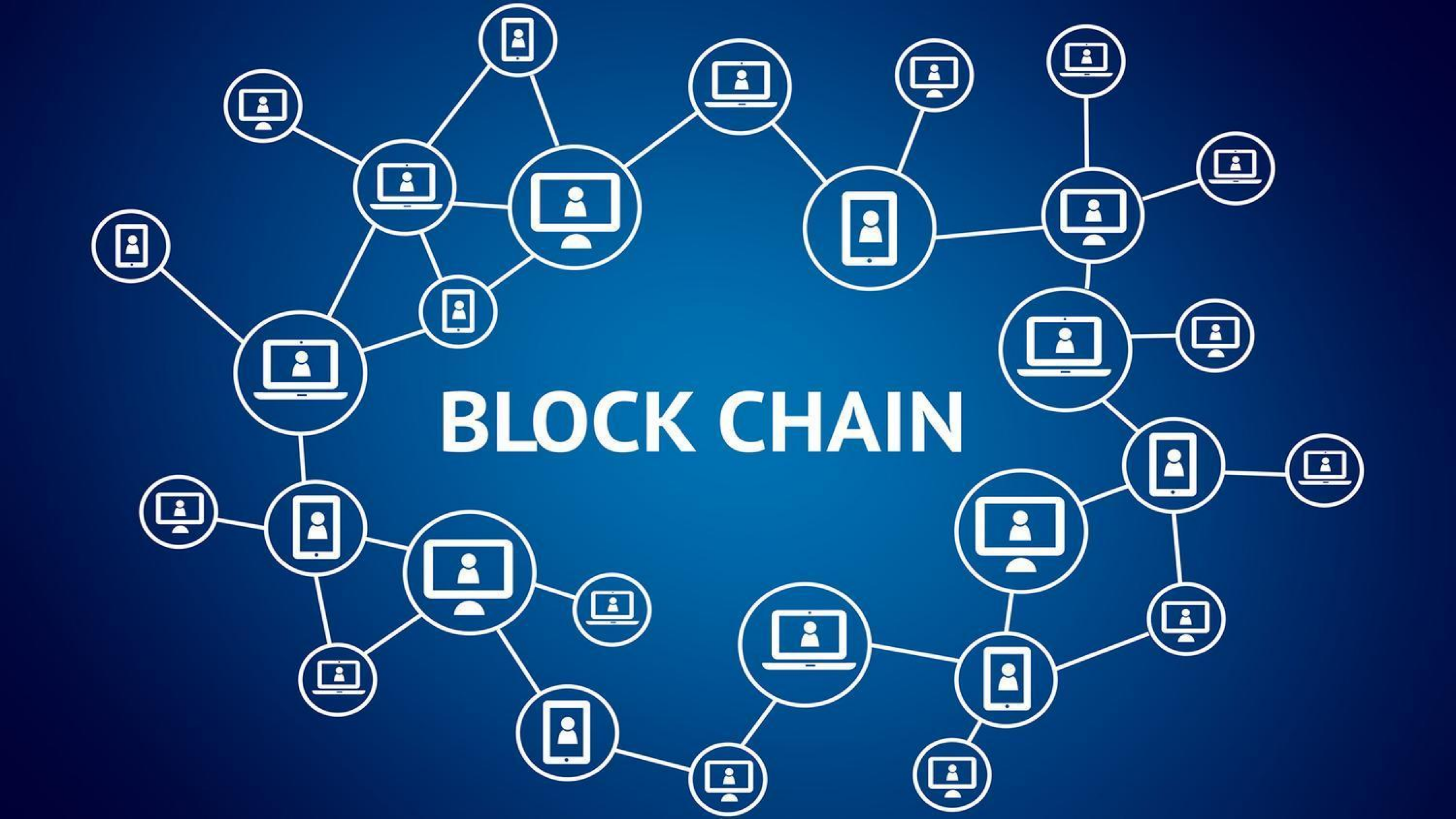
[*]Full author list given at the end of the article.


Mining(채굴)

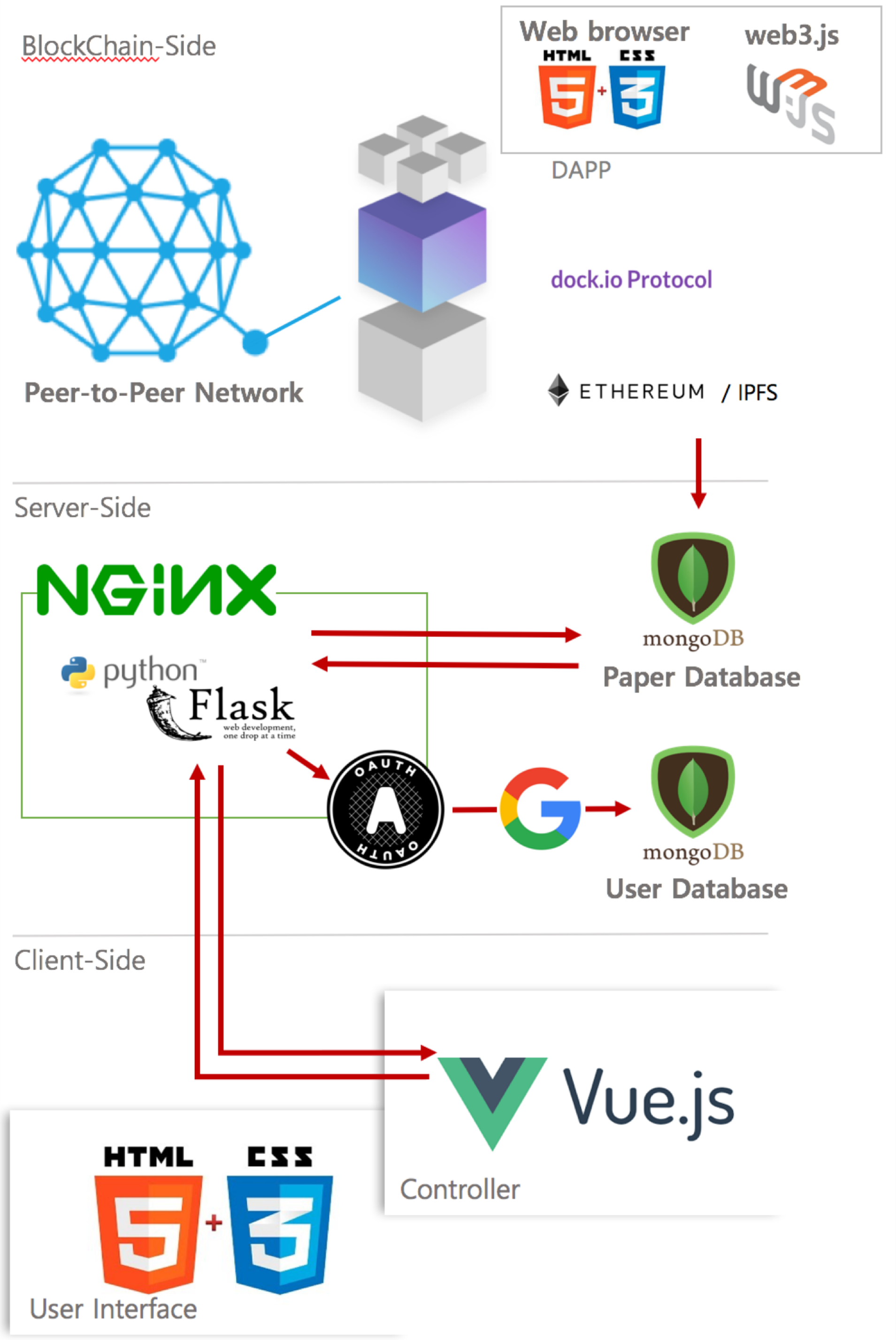


Consensus Algorithm

>= 51%


BLOCK CHAIN

시스템 구성도


BlockChain-Side
Web browser
HTML
CSS
web3.js
DAPP
dock.io Protocol
Peer-to-Peer Network
ETHEREUM / IPFS
Server-Side
NGINX
python
Flask
web development, one drop at a time
mongoDB
Paper Database
OAUTH
mongoDB
User Database
Client-Side
Vue.js
Controller
HTML
CSS
User Interface


교수님 논문 저작권, 저희가 지켜드릴게요.